

# Annual Report 2017-18



“Linking India  
with the World”



Indian Council for Research on International Economic Relations





Indian Council for Research on  
International Economic Relations

# Annual Report 2017-18

# ICRIER

Indian Council for Research on  
International Economic Relations



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## Foreword by Chairperson



The year 2017-18 has been another productive year at ICRIER. Once again, the University of Pennsylvania in its 2017 edition of the *Global Go to Think Tank Index Report* has ranked ICRIER in the top three among all think tanks in India. By category, ICRIER is the 1<sup>st</sup> in India and 18<sup>th</sup> globally for International Economics, 1<sup>st</sup> in India and 68<sup>th</sup> globally for Domestic Economic Policy, and 2<sup>nd</sup> in India and 47<sup>th</sup> globally for International Development.

The challenges facing the world today - from agriculture and food security to urbanisation, and climate change, from energy security to rising protectionism and migration issues - are complex and interconnected. This is over and above the internal challenges of steering the process of the economy's development by reviewing and reforming the current policy regime and institutions for governance. ICRIER uses its expertise to conduct rigorous research and offer practical policy prescriptions, and to contribute to the debate on today's biggest challenges facing the Indian economy. Our research programme also continues to break new ground.

As the demand for evidence-based policy research increases globally, governments are recognising the need to supplement expertise available within the governmental system with research conducted outside. I am delighted to note that under the UK-India Economic Policy and Prosperity Partnership (EPPP), ICRIER is conducting ten research studies. The studies have been requisitioned by the Department of Economic Affairs (Ministry of Finance), Government of India, to provide inputs for domestic policymaking and for G-20 negotiations.

ICRIER has been endowed with a Chair by the Ministry of Electronics and Information Technology (MeitY) on Internet Policy: Value, Security and Governance, and Dr. Rajat Kathuria is the first occupant of the Chair. A research study, "The Anatomy of an Internet Blackout: Measuring the Economic Impact of Internet Shutdowns", at ICRIER has been widely quoted with its estimate of a loss of about US\$3 billion during the period 2012 to 2017. Our telecom team, under the leadership of Dr. Kathuria, has been engaging with policymakers on issues of contemporary relevance such as the economics of data localisation, artificial intelligence and the opportunity costs of internet shutdowns. As the Department of Telecommunications is in the midst of formulating a new National Communication and Digital Communications Policy 2018, our work has provided important inputs on making the policy accessible to all stakeholders.

Research on agriculture at ICRIER is focused on issues relating to the global competitiveness of Indian agriculture as well as the challenges of food security, sustainability, and value chains, under the leadership of Prof Ashok Gulati, the Infosys Chair on Agriculture. A study on 'Agricultural Policies in India' was prepared jointly with OECD, highlighting progress made in India over the past two decades in agricultural diversification, sustainability and support. The study also underscores key challenges facing the sector, including climate change, pressure on natural resources and productivity growth.

Following the conclusion of a global research project in the Network of Jobs and Development (NJD) initiative of the World Bank in 2016, ICRIER co-hosted a second

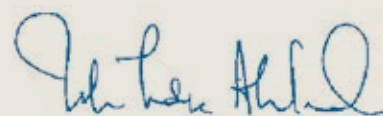
global conference for dissemination in Bogota, Colombia in May 2018. The Bogota conference provided a platform to discuss how to foster the creation of productive jobs around the world based on research and empirical evidence. This helps ICRIER in shaping its research agenda in this very important area of jobs and development.

An important initiative this year was the second China-India dialogue organised by ICRIER in collaboration with the New Climate Economy and Tsinghua University in New Delhi. It focused on finance, energy, climate change and growth, and south-south co-operation.

ICRIER has also been at the forefront of efforts to improve mutual understanding between India and Japan since 2007. The 8<sup>th</sup> ICRIER-PRI Workshop on the theme

*‘Economic Reforms in India: Opportunities for Enhancing India-Japan Economic Partnership’* was organised in Tokyo, this past year.

I am very happy to note that ICRIER continues to adapt to new challenges and opportunities in our fast changing economy under the leadership of Dr. Rajat Kathuria, Director and Chief Executive, ICRIER. We must continue to build on the excellent reputation we have acquired in the Think Tank world.



**Isher Judge Ahluwalia**  
Chairperson, ICRIER

## Board of Governors

### Chairperson

**Dr. Isher Judge Ahluwalia**

W-36, Greater Kailash-I

New Delhi - 110 048

**Dr. Kiran Mazumdar Shaw**

Chairman & Managing Director, Biocon Ltd.

20<sup>th</sup> KM, Hosur Road, Electronics City

Bengaluru - 560 100

### Elected Members

**Mr. Pramod Bhasin**

Founder, Genpact India

F-35, Radhe Mohan Drive, Gadaipur

New Delhi - 110 030

**Mr. Tarun Das**

Chairman, Institute of Economic Growth

102-B, Beverly Park-I, Mehrauli Gurgaon Road

Gurugram - 122 009

**Mr. Nitin Desai**

Former Under-Secretary-General, United Nations

B-63, 1<sup>st</sup> Floor, Defence Colony

New Delhi - 110 024

**Ms. Janaki Kathpalia**

Former Additional Secretary

Ministry of Finance, Government of India

D-935, New Friends Colony, New Delhi - 110 065

**Mr. Uday S. Kotak**

Vice Chairman & Managing Director

Kotak Mahindra Bank Ltd.

Bakhtawar, 2<sup>nd</sup> Floor, 229, Nariman Point

Mumbai - 400 021

**Mr. Sudhir Mankad**

Chairman, Gujarat Int. Finance Tec-City Co. Ltd.

Plot 192, Sector 8, Gandhinagar - 382 007

**Mr. Sanjiv Misra**

Non-Executive Chairman of Axis Bank

1541, ATS Village, Sector 93A, Noida Expressway

Noida - 201 304

### Co-opted Members

**Mr. Kunal Bahl**

Founder & CEO, Snapdeal.com

363, Udyog Vihar - IV, ASF Centre, Tower A

Ground Floor, Gurugram - 122 015

**Dr. Rohan Murty**

Founder, Murty Classical Library of India

703, 47<sup>th</sup> A Cross, 9<sup>th</sup> Main Road,

Jayanagar 5<sup>th</sup> Block, Bengaluru - 560 041

**Ms. Pallavi Shroff**

Managing Partner

National Practice Head

Shardul Amarchand Mangaldas & Co

Advocates & Solicitors

Amarchand Towers, 216 Okhla Industrial Estate

Phase III, New Delhi - 110 020

### Overseas Member

**Lord Nicholas Stern**

IG Patel Chair and Director

LSE Asia Research Centre

London, United Kingdom

### Member-Secretary

**Dr. Rajat Kathuria**

Director & Chief Executive, ICRIER

Core 6-A, 4<sup>th</sup> Floor, India Habitat Centre

Lodhi Road, New Delhi - 110 003

## Management Committees

### Executive-cum-Finance Committee

<b>Dr. Isher Judge Ahluwalia</b>	:	<b>Chairperson</b>
Mr. Nitin Desai	:	Member
Ms. Janaki Kathpalia	:	Member
Mr. Tarun Das	:	Member
Dr. Rajat Kathuria	:	Member-Secretary

### Investment Committee

<b>Mr. Uday S. Kotak</b>	:	<b>Chairperson</b>
Ms. Janaki Kathpalia	:	Member
Dr. Rajat Kathuria	:	Member-Secretary

### Building Advisory Committee

<b>Dr. Isher Judge Ahluwalia</b>	:	<b>Chairperson</b>
Mr. Nitin Desai	:	Member
Ms. Janaki Kathpalia	:	Member
Mr. Tarun Das	:	Member
Mr. Pramod Bhasin	:	Member
Dr. Rajat Kathuria	:	Member-Secretary

## Founder Members and Life Members

### Founder Members\*

1. Dr. Montek Singh Ahluwalia
2. Dr. Jagdish Bhagwati
3. Mr. K. K. Bhargava
4. Mr. I. S. Chadha
5. Mr. K. L. Dalal
6. Mr. B. S. Das
7. Mr. Ashok V. Desai
8. Mr. Nitin Desai
9. Mr. M. Dubey
10. Mr. R. M. Honavar
11. Mrs. Anna R. Malhotra
12. Dr. Suman K. Modwel
13. Mr. P. K. Nanda
14. Mr. N. C. B. Nath
15. Mr. P. C. Nayak
16. Dr. Deepak Nayyar
17. Dr. V. R. Panchamukhi
18. Mr. Vijay G. Pande
19. Mr. R. D. Pradhan
20. Mr. Vinay Bharat Ram
21. Mr. S. S. Ramphal
22. Dr. C. Rangarajan
23. Mr. S. S. Rao
24. Dr. Manmohan Singh
25. Mr. R. V. Subrahmanian
26. Dr. M. S. Swaminathan
27. Dr. Charan D. Wadhwa

### Life Members

1. Dr. Shankar Acharya
2. Dr. Isher Judge Ahluwalia
3. Mr. Mukesh D. Ambani
4. Mr. J. S. Bajjal
5. Mr. Jagmohan Lal Bajaj
6. Dr. Surjit S. Bhalla
7. Mr. Y. C. Deveshwar
8. Mr. Jamshyd Godrej
9. Mr. Rajinder Gupta
10. Ms. Lalita D. Gupte
11. Mr. Anwarul Hoda
12. Dr. Bimal Jalan
13. Mr. Rakesh Kacker
14. Mr. K. V. Kamath
15. Dr. Vijay Kelkar
16. Mr. Rajeev Kher
17. Dr. Rahul Khullar
18. Ms. Naina Lal Kidwai
19. Mr. Uday S. Kotak
20. Dr. Rajiv Kumar
21. Mr. Darshan Lal
22. Dr. Deepak Lal
23. Dr. Rajiv B. Lall
24. Mr. Arun Maira
25. Mr. Raghunandan D. Maluste
26. Dr. R. A. Mashelkar
27. Mr. Aman Mehta
28. Mr. Shivshankar Menon
29. Mr. Rakesh Bharti Mittal
30. Dr. Rakesh Mohan
31. Mr. Pawan Munjal
32. Mr. N. R. Narayana Murthy
33. Dr. Arvind Panagariya
34. Dr. Kirit S. Parikh
35. Dr. Swati A. Piramal
36. Mr. S. Ramadorai
37. Mr. N. Ravi
38. Dr. Y. V. Reddy
39. Mr. Shyam Saran
40. Mr. Ajit Seth
41. Mr. Parth J. Shah
42. Mr. Prakash Shah
43. Dr. Kiran Mazumdar Shaw
44. Mr. N. K. Singh
45. Mr. Surendra Singh
46. Mr. Pramath Sinha
47. Dr. T. N. Srinivasan
48. Lord Nicholas Stern
49. Mr. C. M. Vasudev

### \* Late Founder Members

Mr. Malcolm S. Adiseshiah, Mr. M. C. Bhatt, Mr. Brij Bhushan, Dr. Sukhamoy Chakravorty, Mr. Khub Chand, Mr. B. K. Chatterjee, Dr. R. J. Chelliah, Mr. P. K. Dave, Professor P. N. Dhar, Mr. R. S. Gae, Dr. S. P. Gupta, Mr. B. D. Jayal, Mr. L. K. Jha, Mr. S. V. S. Juneja, Mr. P. K. Kaul, Dr. A. M. Khusro, Dr. Rajni Kothari, Mr. Raj Krishna, Mr. Lovraj Kumar, Mr. Suresh Kumar, Dr. K. B. Lall, Mr. Sanjaya Lall, Mr. R. N. Malhotra, Mr. S. S. Marathe, Mr. Fredie A. Mehta, Mr. Govind Narain, Mr. B. K. Nehru, Mr. I. G. Patel, Mr. Anand Prakash, Mr. Bharat Ram, Mr. P. Chenstal Rao, Mr. J. Rameshwar Rao, Mr. H. N. Ray, Mr. S. R. Sen, Mr. N. K. Sengupta, Mr. Y. T. Shah, Mr. Manu R. Shroff, Mr. Harbans Singh, Mr. Prakash Tandon, Mr. T. K. N. Unnithan, Mr. Mohammad Yunus

# Director's Report



Another year has gone by and it is my pleasure to present a summary of the vast range of exciting research that engaged ICRIER during the year 2017-18. The twin policy jolts of demonetisation and GST meant that the economy needed policy offsets to first steady the ship and thereafter, to attempt to capture the benefits linked to the regime changes. Further reforms are now even more vital for stronger and sustainable growth and I am delighted to report that research and dialogue activities at ICRIER continued to focus on areas of central importance to India's policy agenda, namely fiscal federalism, productive employment generation, climate change, food security, strengthening farm and market linkages, costs and benefits of growing digitisation and regional and sub-regional integration.

Competitive federalism has been in recent times a defining instrument of state craft to spur underperforming states to emulate the better performing ones. How different states have spent the money they were awarded following the Fourteenth Finance Commission's decision to provide greater autonomy to them is an important research question we are attempting to answer. It will provide insights into development priorities across states. Another related question is the performance of the centrally sponsored schemes that remain after the recent rationalisation. Both these studies have been awarded to ICRIER by the Fifteenth Finance Commission and the evidence produced will serve as crucial inputs in the commission's work.

Two other studies commissioned by the Fifteenth Finance Commission, focusing on municipal finances, will help nudge the spirit of healthy competition to the sub-national level. The first study examines the 'own revenue' of 53 municipal corporations across India with a population of one million or more. The study proposes to analyse the changes that have taken place in the structure of the 'own resource' component, which includes tax and non-tax

revenues, of urban local bodies (ULBs) over the past ten years. Special focus will be given to contemporary issues like the adoption of modern techniques and methods for improving the property tax base of cities and the impact of GST on municipal finance. The second study will analyse the state of municipal finances in India by developing a set of indicators. This study will compile broad national and state level indicators on municipal finances to enable the 15<sup>th</sup> Finance Commission to take informed decisions regarding recommendations to states, duly considering the State Finance Commission (SFC) Reports.

Despite being widely recognised as the fastest growing major economy in the world, there are concerns over the lack of productive job creation to meet the employment demands of India's rapidly rising workforce. ICRIER's study "*The Challenge of Productive Employment Creation in India*", is part of our ongoing Ford Foundation-funded research programme that seeks to address gaps in employment creation and measurement in India. The study submits that maximisation of employment and not just maximisation of GDP needs to occupy centre stage in the backdrop of India's bulging demographic profile. It attempts to understand where existing jobs are located in the economy, whether these jobs are indeed productive / good jobs and where jobs will come from in the future. The study examines the drivers of output and employment growth and whether certain sectors and types of firms hold the key to job creation.

Our engagement with the Ford Foundation on employment builds on the recently completed World Bank sponsored *Jobs for Development* research programme, which focused on the interface between labour market institutions, manufacturing and job creation. Our future work in this area seeks to gauge how changes in demand and technology are changing the nature of jobs with an in-depth focus on India to complement the wealth of global studies on the

*future of work*. India's complex labour market institutions and abundance of relatively less skilled labour present a different set of initial conditions that make such an inquiry useful not only for policy in India but also to constructively contribute to the global discourse on this gripping subject. Skill development and entrepreneurship are other areas that ICRIER has included in its research to complement our work on employment creation.

The related issue of the competitiveness of the Indian economy is the focus of the Programme on Global Competitiveness of the Indian Economy at ICRIER, which looks at factors such as the narrow manufacturing base, the predominance of agriculture as a source of employment, infrastructural deficiencies and low digital connectivity. The first project under this programme explores job creation specifically in the renewable energy sector and in India's export sectors and their impact on the global competitiveness of the economy.

The growth of the Indian economy is inextricably linked to the performance of the agricultural sector. Agricultural growth is recognised to alleviate poverty much more effectively than equivalent growth in other sectors. Research at ICRIER this year has focused on a review of agricultural policies in India, water productivity mapping of major Indian crops, value chains, food security and trade. The ICRIER-OECD study on Agriculture Policies in India has proposed a comprehensive set of policy measures that, taken together, will improve the incomes and well-being of farm households, improve nutrition outcomes for the most vulnerable members of Indian society, enable the farm and food sector to grow sustainably, and strengthen India's competitiveness in global food markets. The study highlights both the notable progress made by the country's agricultural sector over the past two decades and the important challenges now confronting the sector: declining but still persistent food insecurity and nutrition deficiencies, large numbers of small and resource poor farms, increasing water scarcity, low productivity growth, and the unpredictable effects of climate change.

Another major area of research focus in the agricultural sector has been on the study of value chains in dairy, horticulture, poultry, fisheries and pulses. The objective is to analyse these value chains in the framework of competitiveness, inclusiveness, sustainability and scalability (CISS), and access to finance (F).

An extremely interesting survey based study on "Fruits, Vegetables and Juice Intake of School Children, Nutritionists and Dieticians", conducted by ICRIER, showed that nutritionists and dieticians as well as school-going children fall short of the National Institute of Nutrition's recommended daily intake of fruits and vegetables. Examining best practices in other countries, the study has made recommendations on how to work with schools, educational institutes and industry to ensure "nutrition security".

Our research programme on telecom engaged with policymakers on issues of contemporary relevance such as the economics of data localisation, artificial intelligence and the opportunity costs of internet shutdowns. For example, the study on "The Anatomy of an Internet Blackout: Measuring the Economic Impact of Internet Shutdowns" found that 16315 hours of Internet shutdown in India cost the economy approximately US\$3.04 billion during the period 2012 to 2017. The study on "Online Freelancing: Challenges, Opportunities and Impact in India" demonstrated that the risk of job destruction due to digital technology could be converted into an opportunity through online freelancing and micro work in which several new and young entrants to the labour force could find livelihood opportunities. The research also highlights the expanding scope and scale of this ecosystem to incorporate a wider variety of skills, work types and commitment to freelancing. Relatedly, the MeitY Chair for Internet Policy at ICRIER supports policy-based research on aspects of Internet openness, security and governance. The objective is to undertake evidence based research that will build capacity for India's participation in international fora while strengthening domestic policy.

I am delighted to state that building on our engagement with G20 issues since 2009, we were called upon to support the Department of Economic Affairs, Ministry of Finance, for inputs in the government's G20 negotiations and domestic policymaking. Ten studies have been commissioned under the UK-India Economic Policy and Prosperity Partnership (EPPP) programme that range from exploring the possibility of adopting an 'evidence-based' approach to tax policy in India to identifying specific policies that can be the focus of collective policy action by G20 countries around inclusive growth. Other themes include an evaluation of the applicability of existing international taxation principles to the evolving digital ecosystem, analysing the potential for inclusion of totalisation agreements in the G20 agenda, women's empowerment through digitised means of

financial inclusion, application of innovative technologies for promoting financial inclusion, promoting transfer of technology in G20 to enhance resilience to climate change, surveillance as an important aspect of health in G20 discussions, and the future of work.

Strengthening trade and connectivity between India's north-eastern states and Myanmar is a major building block in India's Act East Initiative. The project on "Enhancing Trade and Connectivity between India and Myanmar" examined the effectiveness of the trade policy measures adopted by India in 2015 to switch from barter trade to normal trade, the persisting impediments at the India-Myanmar border and suggested how these can be addressed to enhance cross-border trade. ICRIER's focus on the North Eastern Region (NER) of India was palpable with the release of the report on Trade Facilitation Measures to Enhance Participation of Women in Cross-border Trade in BBIN. The report is the first systematic initiative to develop an analytical framework to identify the challenges and impediments faced by women in the Northeast states in engaging in cross-border trade, with particular emphasis on demonstrating the importance of gender mainstreaming for trade facilitation measures.

This year, we hosted the 19<sup>th</sup> Annual Neemrana Conference, which is a signature event in ICRIER's calendar of policy focused interactions between India and the United States. Hosted at the picturesque Neemrana Fort Palace Resort in Rajasthan every year, this conference brings together top level Indian policy makers, academics, opinion makers and captains of industry to interact with leading researchers and policy makers from the USA. The partner institution for the annual event from the United States is the National Bureau of Economic Research (NBER). The discussions at this two-day conference were structured into sessions on the world economy, banking and finance, agriculture, economic growth and financial inclusion, urbanisation, public finance and the macro economy, labour market and the challenge of job creation, education and skill development, and growth, inequality and inclusion.

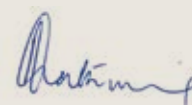
The 2<sup>nd</sup> India-China Dialogue focusing on finance, energy, climate change and growth, and south-south co-operation was hosted by ICRIER in New Delhi from January 29 to January 30, 2018. In addition to the dialogue itself, both delegations also participated in a business roundtable (co-hosted by FICCI and ICRIER) and a Friends of the Dialogue dinner co-hosted by Global Commissioner Naina Lal Kidwai

and H.E. Klas Molin, the Swedish Ambassador to India. Besides, we organised a conference on India Pakistan Trade, the 8<sup>th</sup> workshop with Japan for Enhancing India-Japan Economic Partnership and the 3<sup>rd</sup> workshop on India-Japan Partnership for Economic Development in the Northeast.

The Annual G20 Conference organised by ICRIER is now a firmly established and widely appreciated initiative and the 9<sup>th</sup> conference was organised in June 2017 at New Delhi just prior to the Hamburg summit. The conference featured eminent participants from academia, think tanks, government and industry from India and abroad and key speakers included Arvind Subramanian, the then Chief Economic Adviser, Government of India.

Cities are integral to India's rapid growth, particularly in its current stage of development. To discuss and identify the key challenges and opportunities for Indian cities and towns as they prepare to deliver a better quality of life and act as engines of growth, ICRIER, in February 2014, jointly with India Habitat Centre (IHC), launched a series of interactive discussions between the IHC membership and eminent experts, titled, 'Conversations on Urbanisation'. We have had 23 conversations since inception of which four were organised this year. These were "Talking about Frothing Yamuna and Bellandur Lake" by Almitra Patel, "Water: Rethinking Service Delivery in India" by Junaid Kamal Ahmad, "Urban Travel in India: Problems, Opportunities and Challenges" by Geetam Tiwari, and "Imagining Water Secure Cities" by Arunabha Ghosh.

Research work at ICRIER culminated in the release of numerous books and reports, which are listed in the Annual Report. Our high rank among Indian and global think tanks as mentioned in the chairperson's foreword is a matter of great pride and ICRIER continues to be among the top Indian think tanks in the world. The ICRIER team remains committed to enhancing the knowledge content for policymaking and facilitating India's effective engagement with the global economy by undertaking high quality, evidence based policy-oriented research and fostering informed discourse. By all accounts, 2017-18 was another productive year for ICRIER and I hope you enjoy reading about our activities in the Annual Report.



**Rajat Kathuria**

Director & Chief Executive, ICRIER



# RESEARCH ACTIVITIES

## 1. Macroeconomic Management, Financial Liberalisation and Regulation

### 1.1 Can Asset Reconstruction Companies (ARCs) be Part Solution to the Indian Debt Problem?

**Project Leader:** *Jaimini Bhagwati*

**Research Team:** *M. Shuheb Khan and Ramakrishna Reddy Bogathi*

**Commencement:** June 2016

**Date of Completion:** April 2017

**Funded by:** As part of RBI Chair (Rs. 400 lakh)

The Indian debt overhang issue is one of the major reasons that fresh investments are currently not being made in the scale required to promote higher growth and boost employment. Among banks, public sector banks (PSBs) are burdened with the bulk of net non-performing loans (NNPAs). These NNPA are concentrated in long gestation projects, for example, in the steel, power and infrastructure sectors, and most of the lending was to about 50 major borrowers. This study details the approaches of other countries when their banking sectors were burdened with unsustainable levels of impaired assets. It examines the bad debt situation in India, the circumstances under which Asset Reconstruction Companies (ARCs) were registered and the changing regulatory requirements under which they have been operating in India. Until now, the extent to which ARCs have helped resolve the debt problem has been limited. Given that fixed costs in setting up ARCs have already been incurred, this study suggests how ARCs could play a catalytic and more significant role in addressing the debt overhang. The study has been published as an ICRIER Working Paper.

### 1.2 Development Expenditure in the States Post Fourteenth Finance Commission Award

**Project Leader:** *Sindhushree Khullar*

**Research Team:** *Divya Satija and Kumar Abhishek*

**Commencement:** April 2018

**Expected Date of Completion:** October 2018

**Funded by:** Fifteenth Finance Commission of India (Rs. 14.34 lakh)

Over the last five years, there have been rapid institutional and structural changes in India. In 2014-15, the plan / non-plan classification in expenditure was discontinued, and expenditure was classified as revenue and capital expenditures. In addition, the transfer of block grants from the central government directly to implementing agencies at the state level was discontinued and instead, that state's share of centrally sponsored schemes (CSS) is now transferred to the consolidated fund of the state governments. Following the replacement of the Planning Commission with the NITI Aayog in 2015-16, the share of taxes devolved upon the states increased from 32 per cent to 42 per cent, as recommended by the Fourteenth Finance Commission (FFC), increasing the fiscal space available to states. In 2016-17, the Cabinet approved the rationalisation of CSS, and the number of CSS was reduced from 66 to 28. Against this background, ICRIER is undertaking two studies for the 15<sup>th</sup> Finance Commission of India.

#### 1.2.1 Development Expenditure in the States Post Fourteenth Finance Commission Award: How Have States Spent the Award Money?

*Sindhushree Khullar, Divya Satija and Kumar Abhishek*

*Ongoing*

This study assesses the net additional resources received by states after the increase in the devolution percentage and how they spent these resources. This is being done by analysing the outlays and outcomes

of development schemes and programmes and any changes in their composition, mix and priorities and their consequent impact on the desired national goals for the first two years of the award period, i.e., 2015-16 and 2016-17.

### 1.2.2 *Development Expenditure in the States Post Fourteenth Finance Commission Award: An Assessment of the Remaining Centrally Sponsored Schemes*

*Sindhushree Khullar, Divya Satija and Kumar Abhishek*

*Ongoing*

This study assesses that impact of the lower fiscal space for the union government on the outcomes of national development schemes and programmes. In addition, this study analyses the effect of rationalisation of CSS on the design and implementation of these schemes and how the collective efforts of the union and the states are being harmonised to meet the international commitment to achieve the 2030 Sustainable Development Goals.

## 1.3 **UK-India Economic Policy and Prosperity Partnership (EPPP)**

**Project Co-ordinator:** *Arpita Mukherjee*

**Commencement:** September 2017

**Expected Date of Completion:** November 2018

**Funded by:** Department for International Development (DFID), UK, and Department of Economic Affairs, Ministry of Finance, Government of India (Rs. 276 lakh)

The UK-India Economic Policy and Prosperity Partnership (EPPP) is funded by the Department for International Development (DFID), UK, to support the Government of India's reform programmes and includes research and capacity building of central government agencies. PwC India is managing this project and ICRIER is a consortium partner. As of June 2018, ICRIER has been commissioned to undertake ten research studies, based on the request received from the Department of Economic Affairs, Ministry of Finance, Government of India, that will provide inputs for the G20 negotiations and for domestic policymaking. The studies include the following.

### 1.3.1 *Research Based Policy Making in Taxation: Building Revenue Analytics Capability Following Best Practices from the UK and Other Countries such as Australia and Canada*

*Rajiva Ranjan Singh, Anandita Bagchi and Divya Satija*

*Completed*

To make the tax policy making process in India more structured and robust, this study explored the possibility of adopting an 'evidence-based' tax policy making approach in India using a comparative analysis of best practices in tax policy-making of selected countries including the UK, Australia and Canada. The study has examined the process of evidence-based tax policy making in the selected countries, analysed the existing process of tax policy making in India in order to identify gaps, if any, and provided recommendations for India to improve the process. The key findings of the study are that in India, there is no structured or documented process for evidence based policy making; no regulatory impact assessment (RIA) is done or consultations held while a policy is being designed; and such analysis is usually ex-post. The study provides recommendations on how India can develop a well-structured process of evidence based tax policy making. The study also suggests that India can strengthen its revenue analytics capabilities by collaborating with the UK using field visits, training programmes and other capacity building initiatives to develop a guidebook for tax policy making, create a central repository for tax data, and strengthen survey based research (for example tax payer surveys).

### 1.3.2 *Agenda for Inclusive Growth under G20*

*Suresh Aggarwal, Divya Satija and Shuheb Khan*

*Draft Report Submitted*

Inclusive growth strategies are increasingly a global concern, particularly among the G-20 countries. The objective of this study is to identify specific policies that have a positive impact on both growth and inequality and can be the focus of collective policy action by G20 countries. The study analyses the effectiveness of different fiscal policy instruments and prioritises public expenditure to achieve the desired outcomes. Using a host of policy and outcome indicators, the status and pattern of G20 members on these indicators have been measured. The G20 countries have also been ranked based on a comparative analysis of these indicators. Based on the study outcomes, common issues related to inclusive growth among the G20 have been identified and suggestions have been provided vis-à-vis countries with whom India can co-operate.

### 1.3.3 *Tax Challenges in the Digital Economy Particularly in Case of E-Commerce*

*Rajat Kathuria, Mansi Kedia and Richa Sekhani*

*Draft Report Submitted*

The proliferation of global digital businesses has encouraged an evaluation of the applicability of existing international taxation principles to the evolving digital ecosystem. In the absence of an international consensus, several countries including India have adopted unilateral measures based on the OECD BEPS recommendations (2015). While adoption of VAT for digital services (including business to consumer services) has been a popular reform, implementing changes to direct taxes is complex. However, countries are working with interim measures, such as India's equalisation levy, until permanent revisions on concepts such as significant economic presence are agreed upon. This study elaborates upon the multilateral efforts and solutions proposed by the G20, the OECD and the UN along with unilateral measures adopted by each country as recently as April 2018. The study also summarises the proposals presented by EU and UK to redefine the criteria for significant economic presence that are best suited to a digital world. It explores the literature on value creation and attempts to present a theoretical basis for a balanced approach to taxation that includes value attribution to source countries. The study will propose a model for India including a list of countries that are likely to align with India's position on the subject of taxation of digital businesses.

### 1.3.4 *Inclusion of Totalisation Agreement in the G20 Agenda*

*Anwarul Hoda and Durgesh Kumar Rai*

*Draft Report Submitted*

The main objective of the study is to build a case for international action to address the issue of improving social security protection of international migrant workers. The findings show that there are wide gaps in the social security protection of migrant workers around the world. The most significant gap is on account of the fact that in almost all countries, there is a qualification requirement in terms of relatively long periods of contributions, employment or residence for most social security benefits, which migrant workers find difficult to fulfil as they work in multiple jurisdictions during their life time. This gap can be ascribed almost entirely to the lack of bilateral or multilateral agreements among major migrant-receiving and sending countries. For example, the US, which is the largest destination for migrant workers, does not have social security agreements with three of the four largest migrant sending countries – India, China and Mexico. The UK, which is the fifth largest destination for migrant workers, similarly has no agreements with these important migrant sending nations. Saudi Arabia, which is the fourth largest destination, does not have an agreement with any G20 country. The study argues that both migrant-sending countries and receiving countries have a shared interest in improving the social security benefits of migrant workers and recommends that India should join hands with China,

Indonesia and Mexico in the G20 to strongly encourage member countries to initiate action to conclude bilateral social security agreements with countries with whom they share significant flows of migrant workers.

### 1.3.5 *Women Empowerment through Digitised Means of Financial Inclusion*

*Rajat Kathuria, Mansi Kedia, Kaushambi Bagchi and Sashank Kapilavai*

*Draft Report Submitted*

Programmes such as the G20 Financial Inclusion Action Plan (FIAP) and Women 20 have been involved in designing interventions to alleviate the socio-economic condition of women. The objective of this study is to present a comparative framework of socio-economic and policy indicators that present the overall ecosystem supporting financial inclusion, or the lack thereof, across G20 nations. Through a demand-supply analysis, the study illustrates the importance of financial inclusion in empowering women and analyses the various challenges limiting the gender impact of proliferating financial inclusion schemes. A detailed analysis of the evolution of financial institutions in India highlights the use of technology and innovative practices that have significantly improved the well-being of women in India. Secondary data analysis and a series of stakeholder interactions have helped identify relevant case studies across G20 countries that highlight the use of technology to address both the demand and supply side challenges of financial inclusion. The final version of the study will include detailed case studies that draw attention to best practices in this area and identify solutions that can be adapted to the Indian context. The study will also propose an agenda for collaboration among G20 nations in this area.

### 1.3.6 *Application of Innovative Technologies for Promoting Financial Inclusion*

*Saon Ray, Smita Miglani and Sandeep Paul*

*Draft Report Submitted*

To ensure quality access to formal financial services to all has been a long running and challenging policy agenda in India. The 2011 census reported that, overall, 59 per cent of total households avail of banking services. The figures were 67.8 per cent and 54.4 per cent in urban and rural areas respectively. The Global Findex survey (2014) reported that in the 15+ age group, 53 per cent of the population had accounts with financial institutions. However, financial inclusion is not just about access but also about the use of financial services. While access essentially refers to supply of services, use is determined by demand as well as supply. It is in this context that innovative technological solutions, including blockchain and AI, hold potential to approach the issue from both the demand and supply side to further financial inclusion in the country. These innovations can be rapidly adopted, provide greater scope for innovation and are pioneered largely by new and small players. At the same time, such upcoming operational models require a rethink of the current regulatory structure.

This study delves into the questions of why banks and other financial institutions should and how they can use innovative technology to foster financial inclusion while benchmarking global standards and best practices. It also underlines the impediments to the use of ongoing fintech innovations and suggests actions that could effectively increase their utilisation. Additionally, the study analyses the likely impact of introducing such innovative technological solutions at different levels of financial inclusion to avoid the build-up of risks that could lead to financial instability.

### 1.3.7 *Promoting Transfer of Technology in G20 to Enhance Resilience to Climate Change*

*Amrita Goldar, Shubham Sharma, Viraj Sawant and Sajal Jain*

*Draft Report Submitted*

The objective of the study is to highlight ways to increase co-operation in the G20 on transfer of technology for enhancing resilience to climate change. The study aims to remain relevant for all member countries, while

aligning with India's interest. It is based on interviews with various stakeholders across industry, academia, and government, engaged in the broad domain of technology driven sustainable development across prioritised sectors such as energy, transport and end use, etc., as well as secondary desk research. The study focused on issues such as the merits of technology transfer for developing and developed countries, barriers in the transfer of technology, gaps in the existing technology transfer apparatus and plausible opportunities for further consensus and co-operation among G20 countries.

### 1.3.8 *Bringing Focus on Surveillance as an Important Aspect of Health in G20 Discussions*

*Ali Mehdi, Priyanka Tomar, Pallavi Joshi and Divya Chaudhry*

*Draft Report Submitted*

Health threats like pandemics that have the potential to spread globally in a very short time have increasingly become a significant issue of concern for G20 leaders. The German Presidency in 2017 raised health as a core concern of the G20 by convening a meeting of G20 health ministers for the first time ever. While the declaration talked of tackling antimicrobial resistance (AMR) by promoting the 'prudent use of antibiotics in all sectors' along with 'access to affordable and quality antimicrobials, vaccines and diagnostics' and R&D, the G20 health ministers also stressed 'preventing and mitigating the devastating impact of health emergencies' and the importance of complying with International Health Regulations (IHR), 2005, in the efficient management of public health emergencies of international concern (PHEIC). To support the G20 discussion on health in the context of strengthening surveillance, with a special focus on AMR, this study explores a) the specific aspects of health surveillance on which consensus could be generated in the G20; b) the value added in surveillance that G20 can provide under / above WHO GLASS and International Health Regulations (IHR)'s core capacity requirements for surveillance; and c) the role that the IT industry can play in helping achieve the proposed value added in surveillance.

### 1.3.9 *Future of Work*

*Radhicka Kapoor, P. P. Krishnapriya, Raavi Aggarwal, Surbhi Ghai, Serene Vaid and Mayank Jain*

*Policy Brief Submitted*

Technological progress has historically been the principal source of economic growth and development of nations. The world has gone through a series of 'industrial revolutions' since the 18<sup>th</sup> century. The first industrial revolution began in the late eighteenth century with the mechanisation of the textile industry and the emergence of the steam engine. The second industrial revolution brought in the age of mass production using electricity and consequently the moving assembly line. The third was the digital revolution that began in the 1980s. The advent of computers and the internet, along with information and communication technology (ICT), initiated the process of simplifying cumbersome tasks through automation. Today, the world stands on the brink of the fourth industrial revolution, which cuts across the physical, digital and biological realms to redefine what is considered "intrinsically human." Although it is conceptualised as an upgrade on the third industrial revolution, it is widely believed that the speed, scope and ubiquitous nature of the fourth industrial revolution distinguish it from the earlier phases.

While this technological revolution promises higher productivity and efficiency in the work space, it is as yet unclear how its broader impact on employment, skills and the 'future of work' will unfold. What is clear though is that it will affect almost every industry across every country. Marked by the advent of technologies such as machine learning and artificial intelligence, it is believed that Industry 4.0 will fundamentally alter the organisation of work, production and delivery processes of goods and services, throwing up challenges, while concomitantly presenting a myriad of opportunities for new jobs and markets to be created. The concept of work is expected to fundamentally change with some arguing that the idea of a 'permanent' job is likely to

become antiquated and the concept of job security more nebulous, thus raising questions on the adequacy of existing legal, institutional and social protection frameworks.

Given the widespread anxieties and apprehension about the impact of the ongoing technological revolution across the developed and developing world, the G20 Argentinean Presidency has identified the 'Future of Work' as a priority area for 2018. This study presents the current discourse on the impact of the ongoing technological revolution on the world of work and outlines appropriate policy responses to deal with the challenges thrown up by Industry 4.0.

### 1.3.10 *Infrastructure for Development*

*Debarpita Roy, Himanshu Shekhar and Kuntala Bandyopadhyay*  
*Policy Brief Submitted*

Infrastructure financing has found renewed focus in the upcoming Argentinean G20 2018 presidency. While sustained availability of cheap finance remains an important issue, there is also need for standardisation of infrastructure projects and diversification of financial instruments to mitigate risk and attract more investment. According to the Indian Economic Survey 2018, around US\$4.5 trillion worth of investments is required by India until 2040 to develop infrastructure to improve economic growth and community wellbeing. The current trend shows that while India can meet around US\$3.9 trillion of this infrastructure investment requirement, there would remain a gap of about US\$526 billion by 2040. Accordingly, the development of infrastructure as an asset class is being encouraged as the key thrust of India's 'infrastructure for development' track at G20 2018. In this study, issues concerning the improvement of financial vehicles for funding infrastructure, effective mechanisms for tapping into domestic savings for increased funding of infrastructure, development of global standards for project preparation across a project life cycle, addressing data gaps on financial performance of infrastructure projects, developing a national advisory body for PPPs in infrastructure, and furthering an international consortia of countries to develop more avenues of infrastructure investment to develop infrastructure as an asset class in India will be discussed in detail as a part of this initiative.

## 1.4 *Effect of Consumer Finance on Financial Inclusion in India*

**Project Leaders / Co-ordinators:** *Rajat Kathuria and Saon Ray*

**Research Team:** *Smita Miglani and Sandeep Paul*

**Commencement:** March 2017

**Date of Completion:** August 2018

**Funded by:** Home Credit India Finance Private Limited (Rs. 82 lakh)

Despite substantial progress in financial sector reforms in India, many rural and urban households do not have any access to funds. It is against this backdrop that this study aims to provide evidence of the size of the unbanked population in India, and the reasons for such exclusion. The study examines the importance of consumer finance for financial inclusion, the products and financial services missing in India when compared to other countries, and the impact of consumer finance on minimising the demand for an unregulated (black) lending market. It compares consumer finance with banks to show that they target different but complementary audiences with different product offers, compares consumer finance with microfinance and analyses the key differences between microfinance and non-banking financial companies. The study also provides an overview of the current Indian rate cap framework (imposed on microfinance companies), its historical development over time, and the regulatory impact. It examines how and why the rate cap implementation process was initiated and what the key trigger was along with the effects of rate cap implementation in other countries, such as Great Britain and Japan.

## 1.5 **Doing Good Index – Assessing the Environment for Charitable Giving and Receiving in Asia**

**Project Leader:** *Pankaj Vashisht*

**Research Team:** *Anandita Bagchi; Noshir Dadrawala and Michelle Chow* (External Consultants)

**Commencement:** July 2016

**Date of Completion:** January 2018

**Funded by:** Tata Education and Development Trust (Rs. 99 lakh)

The philanthropy sector in Asia has remained grossly under-researched despite the phenomenal increase in overall societal interest in giving donations. There has been little effort to examine and document government regulations and fiscal incentives that govern the charitable sector in various Asian economies. Similarly, little is known about the other factors such as the availability of trained manpower and corporate attitudes towards volunteerism that aid the creation and sustenance of a healthy charitable sector. The objective of this project was to undertake an in-depth analysis of government regulations, fiscal incentives and other societal factors that influence the philanthropy sector in any country. Undertaking in-depth secondary as well as primary research, this study developed a set of indicators that in aggregate rate and rank the environmental and regulatory factors that affect an individual's and corporation's ability to engage in philanthropic activities. The study finds that Singapore is at the top of the Doing Good Index in Asia and is closely followed by two other prosperous economies of the region, Taiwan and Japan. In contrast, Indonesia and Myanmar are at the bottom of the table.

## 1.6 **Deconstructing Indian Overseas Foreign Direct Investments: Historical and Contemporary Trends**

**Project Leader:** *Ali Mehdi*

**Research Team:** *Divya Chaudhry, Pallavi Joshi and Priyanka Tomar*

**Commencement:** December 2017

**Date of Completion:** February 2018

**Funded by:** Oxfam India (Rs. 6.30 lakh)

In the context of the internationalisation of developing economies, India's evolution in the growth and nature of outward foreign direct investment (OFDI) holds utmost significance. Given that Indian firms have contributed to overseas transnational investments since the 1960s and have witnessed a number of key structural amendments in domestic foreign policy that have considerably influenced foreign investment flows, India offers the most insightful case study of OFDI among developing countries. While the magnitude of OFDI has risen remarkably over the years, a more intriguing observation is the change in the character of India's OFDI, which clearly reflects the overwhelming transformation that Indian enterprises have demonstrated in terms of their orientation to undertake overseas long-term investments. Against this backdrop, this report makes an attempt to evaluate the magnitude and change in the nature of India's OFDI since the early 1960s. The report puts forth the definition of FDI along with serious data-related challenges that surround its accurate estimation and discusses the origin of India's OFDI, along with a preliminary discussion on the evolution of its policy architecture after the 1980s. The report presents an in-depth analysis on the character of India's OFDI in the two distinct 'waves' of liberalisation. Given their fundamental impact on the magnitude and nature of OFDI, the report captures India's evolving political and regulatory regimen governing OFDI. Further, a detailed case study evaluates the extent and nature of India's OFDI in select African countries.

## 1.7 India-EU Migration and Mobility: A Status Report

**Project Leader:** *Ali Mehdi*

**Research Team:** *Divya Chaudhry, Pallavi Joshi and Priyanka Tomar*

**Commencement:** August 2017

**Date of Completion:** January 2018

**Funded by:** EU Fund implemented by the International Labour Organization (ILO) and the International Centre for Migration Policy Development (ICMPD) (Rs. 6 lakh)

Human capital is increasingly emerging as a central determinant of economic competitiveness as a result of the incessant shift from manufacturing to services-led growth, with providers as well as recipients standing to benefit in their own ways. Developed nations, in particular, have been trying to attract highly skilled global talent through well-managed migration and mobility, with the European Union (EU) for instance, enabling free flow of people within the region and signing agreements under the Global Approach to Migration and Mobility (GAMM) and the Common Agenda on Migration and Mobility (CAMM) with a number of non-EU countries. India was a natural choice for the EU to sign a CAMM agreement with in 2016, given its focus on higher education in general and science and technology in particular, an ever-rising educated and competitive working-age population, and a significant trade relationship.

This report is part of an EU-funded, EU-India Co-operation and Dialogue on Migration and Mobility (CDMM) project, implemented by the International Labour Organization (ILO) and the International Centre for Migration Policy Development (ICMPD) to support the CAMM. With the specific objective of supporting the EU-India High Level Dialogue on Migration and Mobility (HLDMM) as well as the implementation of CAMM and its annex of actions, this status report provides an overview of migration trends between India and the EU, factors that have influenced various forms of mobility (including institutional mechanisms and instruments of co-operation in place) and the developmental impact of migration, and ends with some policy recommendations to strengthen governance of migration and areas for future co-operation between these regions.

The report notes that, at present, the flow of migrants from India to the EU is quite low and largely focused towards a few member states. Nonetheless, increasing complementarities in demographic profiles and skill sets hold out opportunities for both sides. Ongoing negotiations under the Broad-based Trade and Investment Agreement (BTIA) as well as the Labour Mobility Partnership Agreements (LMPAs) with various EU Member States have given a further impetus to this process. Areas of co-operation identified under the broad framework of CAMM provide an opportunity to address the challenges.

## 2. Global Competitiveness of the Indian Economy – Agriculture, Manufacturing and Services

### 2.1 Agriculture, Value Chains, Food Security and Trade

**Project Leader:** *Ashok Gulati*

**Research Team:** *Ranjana Roy*

**Commencement:** October 2014

**Expected Date of Completion:** Ongoing

**Funded** as part of Infosys Chair (Rs. 300 lakh)

#### 2.1.1 *Missing Calories: Is NSSO Data Underestimating Consumption Figures?*

*Ongoing*

India has been praised for maintaining high economic growth in the past decade despite the global slowdown; however, there has simultaneously been a steady decline in energy and protein intake at the household level in India, particularly from 1993. This low energy intake is puzzling since international experience suggests a positive correlation between income and nutrition levels. This study aims to re-calculate the calorie / protein consumption of the Indian population by adopting a supply side approach. In this method, the calorie equivalents are multiplied with food availability figures and then assessed against the intake figures obtained from NSSO surveys. The results show that the availability intake gap as a share of availability is growing over the years – 2 per cent in 1993 to 14 per cent in 2011 for cereals. This increase in deviation is even higher for perishable commodities like vegetables, fruits and meat items. However, a change in the recall period in the NSSO survey from 30 days to 7 days gives higher intake figures and a lower availability-intake gap. The study concludes that, nutritional intake given by NSSO needs better monitoring with a shift from 7-day to 1-day recall and more focus on ‘food taken outside home’, as this may constitute a larger part of the food basket now as compared to earlier times. The study is currently under review.

### 2.2 Driving Agricultural Growth and Alleviating Poverty in Eastern India (Uttar Pradesh, Bihar and Odisha): Learning from Successes in Punjab, Madhya Pradesh and Gujarat

**Project Leader:** *Ashok Gulati*

**Research Team:** *Shweta Saini, Siraj Hussain and Ranjana Roy*

**Commencement:** April 2015

**Expected Date of Completion:** May 2019

**Funded by:** Bill and Melinda Gates Foundation (BMGF) (Rs. 402 lakh)

#### 2.2.1 *Gujarat’s Agrarian Miracle: Sources, Drivers, and Policy Lessons*

*Nearing Completion*

The Indian state of Gujarat was the star performer in agriculture during the period of 2002-03 to 2013-14, with an average annual agricultural growth rate of 8 per cent per annum as against the all-India agricultural growth rate of 3.3 per cent. The analysis shows that the primary source of agricultural growth in Gujarat was fibre, followed by oilseeds, livestock, and fruits and vegetables. The study finds that investment in irrigation and all-weather roads, price incentives and incentives given to cotton growers played critical roles in the state’s agricultural growth. In the past three years, however, drought in two consecutive years (2014-15 and 2015-16) has resulted in a negative growth rate of -0.4 per cent per annum in the period 2014-15 to 2016-17. To help Gujarat get back on the high growth path, the study recommends 1) moving from raw cotton export to apparel by becoming the textile hub of India; 2) ‘Operation Veggies’ by linking major consumer and production centres minimising intermediaries, investing in logistics and linking the processing industry with organised retailing;

3) better extension services; 4) encouraging processing industries by liberalising land lease markets, developing contract farming; and 5) propagating micro irrigation techniques and encouraging the use of solar power for powering irrigation pumps, and generating solar power as the third crop.

### 2.2.2 *Linkages between Agriculture, Poverty and Malnutrition in India*

*Ongoing*

India is home to one-third of the world's poor, who survive on less than US\$1.25 per person per day (World Bank 2013). Widespread poverty remains a pressing concern even though India managed to alleviate it by half in 18 years (1993 to 2011). The majority of the poor is concentrated in rural areas. Although India has been going through a structural change with a higher share of GDP coming from the services sector, agriculture still plays an important role in the country's economy with around 47 per cent of the work force involved in agriculture. There are a lot of studies showing a direct linkage between agriculture, poverty and malnutrition in the literature for many countries. This study investigated the factors leading to high malnutrition levels, based on data from the third and fourth round of the National Family Health Survey (NFHS) 2005-06 and 2015-16. Some important results emerge from this study. Econometric analysis indicates that agriculture plays a significant role in reducing malnutrition in India. A majority of the population is dependent on agriculture and allied activities as a source of livelihood. Improvement in productivity will have a positive impact on their economic status, which in turn will influence their nutritional status. Other factors that have a significant impact on malnutrition are literacy, child care, sanitation and access to health care facilities.

## 2.3 *A Comparative Study of High Performing States in India to Understand Best Practices in Agriculture Extension*

**Project Leader:** *Ashok Gulati*

**Research Team:** *Pravesh Sharma, Anisha Samantara and Prerna Terway*

**Commencement:** October 2015

**Expected Date of Completion:** December 2018

**Funded by:** Bill and Melinda Gates Foundation (BMGF) (Rs.142 lakh)

The Indian agricultural extension system has evolved in the past two decades, with a shift from the earlier focus on increasing yields via technology transfers and adoption to implementing a decentralised and demand driven approach. Amongst various types of government spending on agriculture, investment in agricultural extension and R&D is said to be one of the most critical for promoting farm yields. The dissemination of technology and knowledge delivers value to small and marginal Indian farmers and plays a major role in increasing yields as well as improving livelihoods. Keeping this background in mind, this study undertakes a qualitative and quantitative analysis of India's agricultural extension system and the role of extension in driving growth in the agricultural sector in six identified states namely Gujarat, Punjab, Uttar Pradesh, Madhya Pradesh, Bihar and Odisha. The main objective of this study is to identify effective and sustainable agricultural extension policies to foster higher agricultural growth and inclusivity.

### 2.3.1 *Agriculture Extension System in India: Review of Current Status, Trends and the Way Forward*

*Ashok Gulati, Pravesh Sharma, Anisha Samantara and Prerna Terway*

*Completed*

The paper reviews the Indian agricultural extension system at the national level and shows how agricultural research, education, and extension contribute to agricultural GDP. A comparative analysis of six states – Madhya Pradesh, Uttar Pradesh, Bihar, Odisha, Gujarat and Punjab – has also been undertaken to ascertain best practices and policies to accelerate agricultural growth. India's agricultural extension services have evolved,

but the real issue remains building capacities to make sure that the transfer of technology to the bottom of the pyramid is equitable and efficient in order to reap the benefits of modern day innovations. The paper also examines the agricultural extension system in the BIICS countries (Brazil, Indonesia, China and South Africa) and the US to compare best practices in agricultural extension. The paper contributes to the ongoing debate on agricultural technology-productivity growth with a detailed analysis of the complexities of the Indian extension system, placing the farmer at the core of the study. The empirical analysis has been dovetailed with institutional analysis, supplemented by focus group discussions to evaluate the efficacy of India's agricultural extension services. The paper suggests that the key step to bolster agricultural research & education (R&E) and extension in India is to strengthen the links between research and extension by increasing cross sharing of experiences between the public, private and civil society sectors to ensure that Indian agriculture gets the best possible advice to move to a sustainable and higher growth trajectory.

## 2.4 Analysis and Implementation of Measures to Reduce Price Volatility in National and International Markets for Improving Food Security in Developing Countries

**Project Leader:** *Ashok Gulati*

**Research Team:** *Shweta Saini and Kusha Verma*

**Commencement:** May 2015

**Expected Date of Completion:** December 2018

**Funded by:** Centre for Development Research (ZEF), University of Bonn, Germany (Rs. 37.26 lakh)

India has the largest number of the poor and malnourished in the world along with high price volatility in food items in general, and wheat and rice prices, in particular. This adversely affects their access to food. Price shocks can come either through turmoil in the global markets (as in 2007-08) or through weather shocks in domestic production. The key objective of this project is to understand how best the negative impact of price spikes can be contained in India. The focus of research is on five areas – food price volatility and food market reforms; food and labour market linkages; labour market volatility and income shocks; public and social insurance schemes and the role of ICT for efficient and fair transfers; and inter-linkages between Indian and Chinese food policies.

### 2.4.1 *Indian Food and other Welfare Schemes: With Digitisation towards Cash Transfers*

*Shweta Saini, Sameedh Sharma, Ashok Gulati, Siraj Hussain and Joachim von Braun*

*Completed*

The paper presents a case for a phased rolling out of direct benefits transfer (DBT) for food in India. Through a comprehensive study of all states and union territories on three broad parameters – demographics, performance of the existing public distribution system (PDS), and current state of banking infrastructure – the paper evaluates their “readiness” for shifting away from the existing physical grain distribution system under PDS to the ICT-based DBT under which a food subsidy amount (in lieu of PDS grain entitlement) is directly transferred to the aadhaar-linked bank accounts of identified beneficiaries. The analysis reveals that all 36 states and union territories can implement DBT-food in the next five years, i.e., by the year 2022 and recommends that this should happen in four phases. The states that are urban, have sufficient open market grain availability, are financially inclusive, and have a lower percentage of the poor and malnourished may make the shift almost immediately. For the rest, the shift should be through an interim phase of a reformed and IT-based PDS system with identity verification of beneficiaries. In order to make the transition to DBT feasible and successful, the paper recommends improvements and investments by states / UTs in ensuring adequate food grains in the open markets, inclusive banking infrastructure and diverse payment channels, adequacy of the food subsidy amount and the display of leadership and political will to reform the PDS through DBT. The paper argues that DBT has the potential to make way for a system of social security or universal basic income, where every citizen receives income support – the size of which can be adjusted based on his / her needs and vulnerability.

#### 2.4.2 *Indian Farm Wages and its Linkage with Food Prices*

*Nearing Completion*

In a development model in which the benefits of growth are shared equitably, employment is most relevant for income insecure rural workers. An important sign of inclusive growth is the number of new jobs that are created each year vis-à-vis the number of people entering the labour market. Using both qualitative and empirical techniques, this paper has analysed two aspects of the Indian farm labour market – the inter-linkage between farm wages and food prices and the drivers of real wage growth that India has experienced in recent years. The impact of government schemes like MGNREGS and labour laws like the Minimum Wages Act, 1948, on the farm labour market and prevailing wages has also been examined.

### 2.5 *Agricultural Sustainability, Productivity and Profitability*

**Project Leader:** *Ashok Gulati*

**Research Team:** *Gayathri Mohan and Ritika Juneja*

**Commencement:** April 2016

**Expected Date of Completion:** March 2019

**Funded by:** Monsanto holdings Private Ltd. (Rs. 300 lakh)

Innovations are critical for next generation agricultural development. Efficient technology, effective policy and good governance have contributed immensely to the growth of the agricultural sector globally. This project aims to understand how innovations in technology, institutions, processes and products play an important role in making Indian agriculture globally competitive and domestically responsible, sustainable, productive and profitable. The interplay of different innovations that have helped India achieve its agricultural growth over the years, starting from the green revolution era, will be reviewed, documented and analysed. On the input side, the project will concentrate on water resources, a critical input for agricultural production, and highlight how innovations in agriculture, water use and management can achieve sustainable agricultural development without overlooking productivity and profitability.

#### 2.5.1 *Towards Sustainable, Productive and Profitable Agriculture: Case of Rice and Sugarcane*

*Ashok Gulati and Gayathri Mohan*

*Completed*

This paper looks at the issue of sustainable agriculture from the point of view of irrigation water use. In doing so, it examines the productivity and profitability of two of the most water consuming crops in Indian agriculture, namely rice and sugarcane, which together consume more than 60 per cent of irrigation water in the country. It looks at their productivity not only on a per hectare basis but also on the basis of per cubic metre of irrigation water applied. The focus on rice, especially in Punjab, and sugarcane in Maharashtra, brings out “distortions” in cropping patterns that are not in line with the water endowment of these regions. In order to encourage cropping pattern shifts, both in rice and sugarcane, reforms related to water / energy policies, institutions and technologies using irrigation water need to be undertaken. Some of these are a) implementing price policies that reflect the scarcity and economic value of water and power use in agriculture, while improving the quality and timely availability of these to farmers; b) strengthening marketing opportunities and procurement policies for rice and sugarcane in the water abundant states of the eastern region; c) setting the markets right (reduce market risk) for less water intensive crops (e.g., pulses, oilseeds and cotton) that give much higher value per cubic metre of irrigation water applied in water scarce states; d) paying water and power subsidies as direct benefit transfer to farmers; e) rationing irrigation water and power used in agriculture on a per hectare basis, and then letting water markets operate amongst farmers; and f) adopting irrigation technologies and practices that encourage water savings, such as micro irrigation (drip) systems in sugarcane and rice.

### 2.5.2 *Innovations and Revolutions in Indian Agriculture*

*Ongoing*

With population increasing faster than the production of food, feed and fibre, the challenges for India today and in the future are daunting. Innovation in agriculture is indispensable for achieving sustainable, productive and profitable growth. Innovation is different from invention and involves new ideas, new technologies, or existing technologies being applied in an improved way; new processes or institutions, or more generally, new ways of doing things by people or in a place where they have not been used before. This study is a review of innovations in technologies, institutions, policies, etc. during the green, white, gene, blue, poultry and horticulture revolutions in the country. It also provides empirical tests to support the breakthrough led by the revolutions in the production of the commodities under consideration. In the study, the production gains attributed to these revolutions, compared to the usual scenario, are also computed.

## 2.6 *Agricultural Markets in India*

**Project Leader:** *Ashok Gulati*

**Team:** *Tirtha Chatterjee and Siraj Hussain*

**Commencement:** April 2016

**Expected Date of Completion:** December 2018

**Funded by:** National Commodity and Derivatives Exchange (NCDEX) (Rs. 100 lakh)

The purpose of futures trade is to reduce market uncertainty and bring stability to all stakeholders through the process of price discovery and risk management. Indian agricultural commodity futures have gone through a roller-coaster ride since their mega opening in 2003 and have been subject to abrupt regulatory interventions. Against this background, this project looks into the agricultural commodity market and provides recommendations to deepen markets in India. The questions it seeks to answer are the following. Do all commodities have similar prospects in the futures market? If not, which of them are potential winners? How are farmers to be linked with the futures market? Will the introduction of options help in deepening the futures market?

### 2.6.1 *Agricultural Commodity futures: Searching for Potential Winners*

*Ashok Gulati, Tirtha Chatterjee and Siraj Hussain*

*Completed*

The objective of this paper was to identify commodities with higher potential in the futures market. The review of evolution of the futures market in China and the US shows that some of the characteristics common among all highly traded commodities are their use as food or feed, the existence of a surplus, their share in global trade, and the volatility of and sensitivity to prices. Using principal component analysis, the study finds that commodities that are relatively less sensitive from the perspective of food security have a higher prospect of success in commodity futures than staple food commodities. It suggests that the Indian futures market can be deepened by focusing first on 'non-sensitive' commodities which are less susceptible to government intervention, reviewing the potential of a commodity at regular intervals, developing delivery based contracts to increase the comfort of the regulator and policy makers, encouraging state trading enterprises to trade on the agricultural commodity futures platform so that they have better information and comfort about the dynamics of these markets, making the market more attractive by allowing global players and Indian importers currently hedging in exchanges in foreign countries, especially for edible oils such as palm and soya oils, and ensuring that the regulator, government and commodity exchanges work in harmony for the benefit of various stakeholders.

### 2.6.2 *Linking Indian Farmers to Futures*

*Ongoing*

Despite being over a century old, the agricultural futures market in India lacks depth and liquidity. The share of farmer participation in overall agricultural futures trade is extremely low. Linking farmers with the futures market will be mutually beneficial for both the market and farmers. On the one hand, farmers, when linked with a consistent, liquid and deep futures market, will be able to reap the benefits of efficient price discovery. On the other hand, higher farmer participation will provide more liquidity to the market, improving its efficiency. It is because of the lack of a consistent and credible futures market that farmers make their planting decisions on the basis of past year's prices and end up getting trapped in a vicious cycle of low prices and glut. Against this background, the objective of the paper is to understand the reasons driving the abysmal scenario and identify ways to link farmers with the market. In the paper, we identify reasons for low farmer participation, draw insights from three case studies where farmers have been successfully linked to the market, and draw lessons from the initiatives taken by the Chinese Government and commodity exchange to link farmers to the futures market.

## 2.7 *NABARD Centre for Research in Agri-Economics*

**Project Leader:** *Ashok Gulati*

**Research Team:** *Anwarul Hoda, Bharat R. Sharma, T. Nanda Kumar, Sandip Das; Kavery Ganguly (External Consultant), Harsh Wardhan, Anisha Samantara, Gayathri Mohan and Pritha Banerjee*

**Commencement:** May 2016

**Expected Date of Completion:** April 2019

**Funded by:** National Bank for Agriculture and Rural Development (NABARD) (Rs. 266.16 lakh)

The project is undertaking studies on three themes – issues related to land use in agriculture, issues related to water use in agriculture, and financial inclusion of small holders in high value agriculture.

### 2.7.1 *Issues related to Land Use in Agriculture*

Under this theme, the focus is on land use policy, tenancy laws, and soil health. The aim is to examine how land acquisitions laws, in the context of increasing urbanisation and industrialisation, have ensured transparency and efficiency in land acquisition and land use patterns for both farmers as well as project developers. Secondly, the nature of tenancy laws and how tenancy regulations have affected land utilisation patterns and agricultural productivity will be studied to suggest changes in tenancy laws that promote efficiency and equity in land utilisation. Finally, the study will assess the status of soil health, especially in the light of India's fertiliser use policies.

#### 2.7.1.1 *Research study on Land Acquisition and Land Use*

*Ongoing*

The enactment of the *Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013* (LARR Act, 2013) has made sweeping changes in the land acquisition laws of India. It is generally acknowledged that the 2013 Act has redressed the imbalance that existed between the government as the custodian of public interest and individual land-owners. However, there is also concern that some of the provisions would have far-reaching effects on industrialisation and urbanisation. This paper analyses the LARR Act, 2013, assesses its favourable effect on land-owners and examines its impact on the development process. The paper takes the view that by increasing the compensation for acquired land, mandating social impact assessment to be undertaken and requiring the prior consent of land holders in particular cases, the Act has

indeed corrected the imbalance that existed in the earlier land acquisition procedures between the interests of land-owners on the one hand and project developers and the government as a custodian of public interest on the other. It has significantly increased transparency in the land acquisition process and given a voice to land owners in decisions on land acquisition. At the same time, however, the implementation of the Act as originally enacted could retard the development process by slowing down the building of public infrastructure and industrialisation and impeding the provision of affordable housing for the vast majority of the population moving from rural to urban areas. The paper recommends action for alleviating these adverse effects through the provisions of the LARR Amendment Bill, 2015, and other actions. It also takes the view that unless the development of urban sprawls is effectively controlled by means of spatial planning and provision of affordable housing on a large scale, urbanisation will lead to the shrinking of land available for agriculture in the country.

## 2.7.2 Issues related to Water use in Agriculture

The focus of research under this theme will be on crop-water productivity and irrigation status (surface and groundwater) prevailing across major Indian states. Attempts will also be made to identify and learn from best practices existing globally as well as across the country that are inclusive, sustainable, scalable and financially feasible.

### 2.7.2.1 Water Productivity Mapping of Major Indian Crops

*Bharat R Sharma, Ashok Gulati, Gayathri Mohan, Stuti Manchanda, Indro Ray and Upali Amarasinghe*  
Completed

This study explores two primary questions: Are the existing cropping patterns in India in line with the natural water resource endowments of various regions? Are these cropping patterns sustainable from a water-use perspective? Given that Indian agriculture is prone to droughts that are likely to increase in frequency and intensity with climate change, there is a need to utilise scarce water resources in the best way possible. The objective of agricultural development should not be to raise productivity per unit of land but increase productivity in terms of physical and economic value per unit of water, especially irrigation water. This study presents for the first time maps on the water productivity of ten major Indian crops – rice, wheat, maize, chickpea, tur, groundnut, rapeseed-mustard, cotton, sugarcane and potato – across cultivating districts and states. It notes that if key decisions regarding irrigation, cropping patterns, input pricing, and incentive structures are predicated on the water productivity of crops, it would ensure that water in agriculture is distributed more widely, water-use efficiency is enhanced, and Indian agriculture becomes more sustainable and productive in the long run. Thus, the study seeks to inform targeted policies and investment interventions for meeting the twin objectives of *har khet ko pani* (water to every field) and ‘more crop per drop’.

### 2.7.2.2 Impact of Depletion and Decline of Groundwater Resources on Indian Agriculture

Ongoing

Irrigation has played a crucial role in increasing crop productivity and thereby, the profitability of farmers in India. The overall inefficiencies existing in the surface irrigation system has prompted farmers to shift towards groundwater sources for meeting the irrigation requirements of their crops. With an annual groundwater draft of 253 BCM, India is now the largest groundwater user in the world. Currently, 62 per cent of the net irrigated area in India is under groundwater irrigation. However, this increase in groundwater irrigation coverage has been at the cost of the negative externality associated with continuous groundwater decline and depletion in large areas. The study aims to provide insights on the scenario of groundwater decline and depletion across major Indian states, identify the main reasons responsible for this, quantify the cost of groundwater extraction,

explore the best practices for sustainable groundwater use, and formulate suitable demand side and supply side policies to promote sustainable groundwater use in agriculture.

### 2.7.3 Financial inclusion of Small Holders in High Value Agriculture

The focus under this theme is on the study of value chains in dairy, horticulture (onion, potato, banana and mango), poultry, fisheries and pulses. The objective is to analyse these value chains in the framework of competitiveness, inclusiveness, sustainability and scalability (CISS) and access to finance (F). To ensure the overall growth of these sectors, it is important that the chains are competitive in terms of domestic market efficiency and are trade competitive. Given the predominance of smallholders in Indian agriculture, ensuring inclusiveness is the key to farmers' participation and benefiting in terms of remunerative returns. The study will focus in particular on the different stages of the value chain that require financial assistance and examine innovative financing methods followed in different countries and the extent to which these can be replicated in India.

#### 2.7.3.1 Poultry Value Chain in India

*Ongoing*

Among the Indian livestock-based sectors, poultry farming occupies the primary position due to its rapid growth and sustained expansion. While agricultural growth has been rising at about 2-3 per cent per annum over the past two decades, poultry production has been rising at the rate of around 8 per cent per annum (Food and Agriculture Organisation, 2014). This is mainly due to the steady growth in domestic demand that has made it possible to increase production in a ready market. This paper seeks to capture the dynamics of the industry's growth from four critical angles over the recent past (2000 onwards) – competitiveness, scalability, inclusiveness and sustainability (overarched by financing patterns that intersect all of these). Utilising production, growth, export and price data for the period between 2000-01 and 2015-16, the study will examine (a) the trends and features of development in the Indian poultry sector (b) the rise of integrators and their working models (c) structural changes in the livestock sector vis-à-vis poultry farming and its implication for the inclusion of small farmers and the sustainability of such growth – economically and environmentally and (d) how this seriously undermines their competitiveness. It will also provide policy recommendations based on the analysis.

#### 2.7.3.2 Horticulture Value Chain in India

*Ongoing*

India is the second largest producer of fruits and vegetable with a 9.3 per cent share in total world fruit and vegetables output. While fruit and vegetable crops occupy only around 4.9 per cent of the total cropped area, the production and value of output has exceeded that of food grains. According to the second advance estimates, India had a record production of 300.6 MMT of horticultural crops during 2016-17, which rose to 307.2 MMT during 2017-18. Today, horticulture contributes a higher share to agricultural GDP and earns more in terms of foreign exchange. However, the market for fruits and vegetable crops in India is characterised by fragmentation, high price volatility, substantial quality and quantity losses and low levels of processing. These problems not only limit India's potential in global trade but also contribute to low returns to the farmers growing these high value crops. The objective of this study is to analyse existing value chains of selected horticultural crops (potato, onion, tomato in vegetables, banana and mango in fruits) and provide recommendations to develop more competitive, inclusive, sustainable and scalable value chains with an improved financing mechanism. The research is based on a combination of secondary data analysis, field visits and discussions with all stakeholders in the value chain. A draft paper studying the value chain in the case of potato and onion has been prepared based on the field visits conducted so far and analysis for the rest of the crops is under way.

### 2.7.3.3 Dairy Value Chain in India

*Ongoing*

Since 1998, Indian has continued to hold the number one position among the milk producing countries of the world with a roughly 19 per cent share in world milk output. Between 2001-02 and 2016-17, India's milk production increased from 84.4 MT to 165.4 MT at a compounded annual growth rate of 6.3 per cent. Much of this rise in milk production is attributed to the success of 'Operation Flood'. As a result, the present per capital availability of milk in India is 352 grams per day as compared to the global average per capital availability of 229 grams per day. Milk contributes to one-third of the gross income of rural households. In the case of the landless, half their gross income is from milk. It is estimated that 16 million farmers are engaged in dairying. The value of the milk output was Rs 4.92 lakh crore, which surpassed the value of food grain (cereals and pulses) output of Rs 4.86 lakh crore in 2014-15. The objective of this study is to analyse the existing value chains in the dairy sector and recommend policy measures to create competitive, inclusive, sustainable and scalable value chains with adequate financing options. The research is based on a combination of secondary data analysis, field visits and discussions with all stakeholders such as officials (from dairy co-operatives as well as private sector players), farmers and traders in the value chain. A draft report on the dairy value-chain has been prepared based on the field visits conducted and data analysis from secondary sources and the final report will be completed shortly.

### 2.7.3.4 Pulses Value Chain in India

*Ongoing*

India has been a major producer, consumer and importer of pulses as pulses are integral to addressing the protein gap in Indian diets and sustaining food security. The objective of the study is to map the current pulses value chain, focusing on gram / chana / chickpea and pigeon pea / tur (together these account for nearly half of the production basket) and assess the competitiveness, inclusiveness, sustainability and scalability (CISS) of the chains. The study also includes an analysis of the access to finance and risk mitigation (FRM) with respect to the different stakeholders involved. Under competitiveness, the efficiency of the domestic value chain is measured in terms of the share of farmer's income in the consumer price for gram / chana / chickpea and pigeon pea in particular. It also includes the trade competitiveness of these two pulses value chains. Inclusiveness of the pulses value chain represents the extent to which farmers (who are by and large smallholders) participate in direct marketing channels, value chain logistics, and value addition. Sustainability of the pulses value chain is analysed in terms of environmental and financial sustainability. Lastly, scalability is measured in terms of the potential to diversify to other pulses in addition to gram, and pigeon pea and diversify production of pulses to more states that are agro climatically suitable for growing pulses and have scope for improving yield levels. The study approach is based on an analysis of secondary data and information as well as interaction with key stakeholders (farmers, wholesalers, and processors) in the value chain to understand the issues, challenges and ways to address these.

## 2.8 Review of Agricultural Policies in India

**Project Leader:** *Ashok Gulati*

**Research Team:** *Anwarul Hoda, Shweta Saini and Prerna Terway*

**Commencement:** May 2016

**Date of Completion:** June 2018

**Funded by:** Organization for Economic Cooperation and Development (OECD) (Rs. 98.33 lakh)

The focus of this project was to make quantitative assessments of the support given to the agricultural sector in India. For the first-time, policy indicators like producer support estimate (PSE), consumer support estimates (CSE) and general services support estimates (GSSE) were calculated for India in line with 51 OECD countries and emerging economies. This included both market price support and budgetary spending benefitting farmers and

was expressed as a percentage of gross farm receipts. It also captured general services support to the agricultural sector like expenditure on irrigation infrastructure, expenditure on agricultural research and development as well as food subsidy provided to consumers. It incorporated all domestic policies affecting trade, especially those leading to trade distortions. The results obtained from this study show that farmers are being negatively supported as negative output support offsets the positive input support. Although input subsidies provided through subsidised fertiliser, power, irrigation and credit are continuously rising, producer prices have remained the same for many years and for many crops remain below comparable reference prices in international markets. The report titled “Agricultural Policies in India” has been published under this study and will be useful to policymakers, government and researchers to assess the level of transfers arising from the implementation of policies.

## 2.9 Capacity Building Initiative for Trade Development in India

**Project Co-ordinators:** *Nora Plaisier (Ecorys Netherlands BV), Arpita Mukherjee (ICRIER) and Rohan Krishnan (Ecorys India)*

**Research Team:** *Tanu M. Goyal, Smita Miglani and Avantika Kapoor*

**Commencement:** April 2015

**Date of Completion:** September 2017

**Funded by:** European Community, represented by the Delegation of the European Union to India (Rs. 108 lakh)

This project aimed to enhance trade-related capacity building in India to meet the country’s development objective. A research paper under this project titled “SPS Barriers to India’s Agriculture Exports: Learning from the EU Experiences in SPS and Food Safety Standards” has been completed and submitted to the European Commission, New Delhi. The findings have been shared and discussed with different government agencies in India focusing on sustainable agriculture practices and nutritious food.

## 2.10 Organic Farming in India: Status, Issues and Way Forward

**Project Co-ordinator:** *Arpita Mukherjee*

**Research Team:** *Souvik Dutta, Tanu M. Goyal, Avantika Kapoor and Disha Mendiratta*

**Commencement:** August 2016

**Date of Completion:** August 2017

**Funded by:** Amway India Enterprises Pvt. Ltd. (Rs. 65 lakh)

This survey-based study examined the current status and future potential for organic farming in India, analysed the regulatory practices in the country and examined how India can learn from global best practices in promoting organic farming. The study highlighted issues faced by organic farmers and processed food producers and exporters and made policy recommendations to support the growth of this sector, which have been accepted by Indian government agencies.

## 2.11 Survey of Fruits, Vegetables and Juice Intake of School Children, Nutritionists & Dieticians

**Project Co-ordinator:** *Arpita Mukherjee*

**Research Team:** *Souvik Dutta, Tanu M. Goyal, Avantika Kapoor and Ankita Marwaha*

**Commencement:** April 2017

**Date of Completion:** December 2017

**Funded by:** PepsiCo India Holdings Private Limited (Rs. 15 lakh)

A number of studies have highlighted the benefits of consuming fruits and vegetables and juice and have linked lower than recommended levels of consumption to poor health and increased risk of non- communicable diseases. Despite being one of the largest producers of fruits and vegetables in the world, India faces high

rates of malnutrition and related diseases and deficiencies that result from poor intake of fruits and vegetables among Indian consumers. A recent study by researchers at ICRIER found that even high and middle income educated Indian consumers consume less than the World Health Organization's (WHO) recommended daily servings (5 servings of 80 grams each) of fruits and vegetables; the shortfall in consumption is more acute among young Indians. Other studies have also highlighted the existence of high levels of nutritional deficiency in India, especially amongst children. As per the recommendation made by the Expert Committee of the Indian Council of Medical Research and accepted by the National Institute of Nutrition, India, every individual should consume at least 300 grams of vegetables daily and 100 grams of fresh fruits regularly. This survey-based study analysed the actual consumption pattern of fruits, vegetables and juices of dieticians and nutritionists and school children, examined the shortfall in consumption, if any, and suggested policy recommendations for the Indian government. The study showed that nutritionists and dieticians as well as school-going children fall short of the National Institute of Nutrition's recommended daily intake of fruits and vegetables. Examining the best practices of other countries, it made recommendations on how to work with schools, educational institutes and industry to ensure "nutrition security".

## 2.12 Evaluation of MAI Scheme

**Project Leader:** *Nisha Taneja*

**Research Team:** *Amrita Goldar and Durgesh K. Rai*

**Commencement:** June 2017

**Date of Completion:** July 2017

**Funded by:** Department of Commerce, Ministry of Commerce, Government of India (Rs. 9.14 lakh)

The main objective of the study was to evaluate the efficacy of the Market Access Initiative (MAI) scheme, which supports various initiatives undertaken for export promotion in India. The study made an assessment of the impact of various activities undertaken under the scheme to promote exports. It evaluated the efficacy of these activities and studied reports submitted by various export promotion councils (EPCs) on the issue. In this regard, it reviewed the level of participation of various stakeholders and examined the extent to which the scheme has contributed to expanding exports and / or achieving product or destination diversification. The efficacy of the implementation mechanism adopted by institutions / agencies such as EPCs was also examined. The study also developed indicators / indices to assess the outcome of the scheme and suggested how these can be improved. The study suggested measures to improve the design, implementation, monitoring and evaluation of the MAI scheme to improve its effectiveness. The final report was submitted to the Ministry of Commerce in July 2017.

## 3. Challenges and Opportunities of Urbanisation

### 3.1 Analysing Sources of Own Revenue of 53 Municipal Corporations in India

**Project Leader:** *Isher Judge Ahluwalia*

**Research Team:** *P.K. Mohanty, O.P. Mathur, Debarpita Roy and Utkarsh Patel*

**Commencement:** April 2018

**Expected Date of Completion:** October 2018

**Funded by:** Fifteenth Finance Commission of India (Rs. 9.94 lakh)

Indian municipal bodies are amongst the weakest globally in terms of fiscal capacity. The ratio of municipal revenues to combined central and state revenues stood at mere 3.62 per cent in 2012-13. Municipal 'own' revenues-GDP ratio was estimated at a meagre 0.50 per cent for 2007-08 as against Central tax-GDP ratio of 11.99 per cent and states' tax-GDP ratio of 5.60 per cent for the same year. Similarly, property tax-GDP ratio

of 0.25 per cent in India was far below the developing countries' average of 0.60 per cent, transition countries' average of 0.67 per cent and developed countries' average of 2.12 per cent for 2000-2009. These raise concerns on fiscal empowerment in the context of the 74<sup>th</sup> Constitutional Amendment.

Against this background, the Fifteenth Finance Commission has commissioned ICRIER to undertake an analytical study of the 'own revenue' of 53 municipal corporations across India. The study will focus on the finances of municipal corporations of cities with a population of one million or more. It will analyse what changes have taken place in the structure of the 'own resource' component, which includes tax and non-tax revenues, of urban local bodies (ULBs) over the past ten years. It will also examine the inter-governmental transfer system in terms of the volumes, structure and basis of the transfers to municipal bodies. Special focus will be given to contemporary issues like adoption of modern techniques and methods for improving the property tax base of cities, and the impact of GST on municipal finance.

### 3.2 **Analysing the State of Municipal Finances in India by Developing a Set of Indicators**

**Project Leader:** *Isher Judge Ahluwalia*

**Research Team:** *P. K. Mohanty, O. P. Mathur, Debarpita Roy and Utkarsh Patel*

**Commencement:** April 2018

**Expected Date of Completion:** October 2018

**Funded by:** Fifteenth Finance Commission of India (Rs. 4.94 lakh)

The all India data base on municipal finances available in India is developed every five years, e.g., 2002-03, 2007-08, 2012-13, as part of the data collected by the Central Finance Commission. The 14<sup>th</sup> Finance Commission collected data for the year 2012-13 on municipal finances and arrived at an all India picture and the 15<sup>th</sup> Finance Commission will do the same for the years 2017-18. Against this background, the Fifteenth Finance Commission has commissioned ICRIER to undertake a study to analyse the state of municipal finances in India by developing a set of indicators. This study will compile broad national and state level indicators on municipal finances to enable the 15<sup>th</sup> Finance Commission to take informed decisions regarding recommendations to states, duly taking into account the State Finance Commission (SFC) Reports.

## 4. **Climate Change and Sustainable Development**

### 4.1 **Unlocking India's Rooftop Solar – The Role of Municipal Bonds Market**

**Project Leader / Co-ordinator:** *Rajat Kathuria*

**Research Team:** *Amrita Goldar, Indro Ray, Aarsi Sagar and Sandeep Paul*

**Commencement:** June 2016

**Date of Completion:** July 2017

**Funded by:** Swedish Energy Agency (Rs. 26 lakh)

The project, a collaborative effort between ICRIER, Stockholm Environment Institute (SEI) and Climate Policy Initiative (CPI), explores the role of municipal bonds in financing renewable energy expansion in urban India and, in particular, rooftop solar systems. The study suggests that municipalities can play a larger role in the acceleration of rooftop solar deployment, that are largely urban centric, in India. Given the lack of public finance even for infrastructure investments, municipalities need to look at new sources of finance and business models to increase the rate of rooftop solar deployment. The study proposes a bond model in which municipalities play an active role in raising debt capital for private rooftop solar developers under the third party financing model. It shows that municipal bonds employed for the operational expenditure (OPEX)

business model can take advantage of lower debt costs, which lowers the levelised cost of energy (LCOE) from rooftop solar systems and makes rooftop solar power costs competitive in many states of India across various consumer categories. This study also illustrates the feasibility of solar rooftop financing through municipal bonds within two separate urban contexts in India – Surat and NDMC. Both are solar cities and perform well in various categories including local governance and service delivery, revenue generation, and renewable energy projects. The financial needs to meet rooftop solar targets in these cities are calculated using different scenarios. The application of the proposed bond model for both cities in general suggests that municipal bonds can significantly reduce the costs for rooftop solar power and make it competitive for commercial, industrial, public and residential customers. The study has been published as an ICRIER Working Paper.

## 5. Physical and Social Infrastructure including Telecom, Transport, Energy and Health

### 5.1 MeitY Chair for Internet Policy: Value, Security and Governance

**Project Leader:** *Rajat Kathuria*

**Research Team:** *Mansi Kedia, Richa Sekhani, Kaushambi Bagchi and Gangesh Sreekumar Varma*

**Commencement:** September 2017

**Expected Date of Completion:** August 2019

**Funded by:** Ministry of Electronics and Information Technology (MeitY) (Rs. 95.43 lakh)

As the Internet governance landscape continues to grow both in complexity and size, India's engagement in this space has been a growing challenge with domestic and international implications of policy decisions. The Internet continues to alter the structure of the economy; more fundamentally, it has altered how people and institutions relate to each other: It has contributed tremendously to GDP disruptions in businesses while also creating socio-political tensions, which demand nuanced governance responses. Moreover, the pervasive use of the internet in the daily organisation of social lives, and its global reach raise issues of security and privacy of individuals and communities, which warrants an understanding of how to manage and govern the Internet, both in the national and international contexts. The MeitY Chair for Internet Policy at ICRIER primarily aims to support policy based research on aspects of Internet openness, security and governance. The objective is to undertake evidence based research that will build capacity for India's participation in international fora while strengthening domestic policy. In the first year, the focus is on the domain name market in India, and the performance of the country code top-level domain (ccTLD) in particular, in addition to research on data flows and data localisation. A fortnightly news digest on internet policy related news is being prepared and widely disseminated along with the development of a data hub that will curate Internet infrastructure and policy related datasets on the dedicated website [www.internetpolicy.in](http://www.internetpolicy.in).

### 5.2 ICANN Research and Multi-stakeholder Engagement Assistance Programme

**Project Leader:** *Rajat Kathuria*

**Research Team:** *Gangesh Sreekumar Varma, Sashank Kapilavai and Siddharth Naidu*

**Commencement:** June 2018

**Expected Date of Completion:** May 2021

**Funded by:** National Internet Exchange of India (Rs. 331 lakh)

The Internet Corporation for Assigned Names and Numbers (ICANN) is among the key global Internet governance institutions responsible for the co-ordination and management of the domain name system (DNS). ICANN is the exemplar of the multi-stakeholder model of internet governance. India's engagement

with ICANN is noteworthy as it was at the ICANN53 meeting in 2015 that India announced its support for the multi-stakeholder approach in Internet governance. Until then, India was considered as a swing state with divergent views on the multilateral and multi-stakeholder approaches to global internet governance. ICANN57 was held in Hyderabad, India, in November 2016, marking an important milestone in the transfer of oversight to the 'global multi-stakeholder community' and presents an important opportunity for greater influence and leadership by developing countries like India, and their stakeholders.

Through this programme, ICRIER aims to enable meaningful and sustained engagement of Indian stakeholders with ICANN through research support for India's representation in the Governmental Advisory Committee of ICANN, and in facilitating greater multi-stakeholder engagement on ICANN related issues. Over the three-year duration of the project, ICRIER will help update and contextualise various stakeholder positions to bring out Indian perspectives and crystallise the issues to be raised by Indian stakeholders in various multi-stakeholder processes, and develop capacity and build the expertise of Indian stakeholders on ICANN related internet governance issues.

### 5.3 **An Analysis of Competition and Regulatory Information in India's Cable and Broadcasting Sector**

**Project Leader:** *Rajat Kathuria*

**Research Team:** *Mansi Kedia and Richa Sekhani*

**Commencement:** November 2017

**Expected Date of Completion:** December 2018

**Funded by:** Tata Sky (Rs. 35.36 lakh)

The *Cable Television Networks (Regulation) Act, 1995*, was a landmark moment in the history of television viewership in India. Over time, the shortcomings of cable TV, such as selective broadcast, costly installation, and poor penetration in rural areas created opportunities for an alternative in direct-to-home (DTH) television. Technological advancement allowed consumers to access better picture and sound quality, along with other value added features. Currently, six service providers compete for a share in the DTH market in India. More recently, the emergence of flexible OTT services such as Netflix and Amazon Prime Video has led to a slowdown in the rapid growth of the DTH market. Convergence in infrastructure is also allowing for collaborative business development across these categories of services.

In 2016, TRAI produced two consultation papers arguing for significant changes in the packaging and tariff structure applicable to the sector. This regulatory intervention was motivated by a desire to do away with perceived malpractices in channel pricing, and to make processes more uniform and transparent, enhancing consumer welfare. The tariff regulations have been met with severe criticism from distributors and broadcasters, who find TRAI's approach too interventionist, greatly limiting their ability to respond to market needs and to earn profit for the purpose of attracting additional investment and keeping shareholders interested.

The objective of this study is to conduct a deeper analysis of the market structure to identify the market failure, if any, and subsequently, identify the optimal approach to regulatory intervention. Recent literature, though scant, has also focused on the welfare impact of regulatory interventions in the cable broadcasting sector, such as mandating a la carte pricing, setting price ceilings for bundles, etc. This literature also focuses on the bargaining dynamics between upstream players (broadcasters) and downstream players (DTH service providers, cable operators) and its consequences for input cost as well as the tariff structure. These theoretical and empirical frameworks will be used to gauge the need for regulation in this sector and evaluate the consequences of existing regulations.

## 5.4 An Analysis of Competition in India's Mobile Handset Market

**Project Leader:** *Rajat Kathuria*

**Research Team:** *Mansi Kedia, Kaushambi Bagchi and Gauri Bansal*

**Commencement:** August 2016

**Expected Date of Completion:** October 2018

**Funded by:** Qualcomm Incorporated (Rs. 95.33 lakh)

Telecom and information technology have transformed the way we live. Mobile phones have been the key to this revolution in India. It is now the second largest smart phone market globally. At present, the mobile phone market in India is overcrowded with over 100 brands and 3400 models. Moreover, the market is also very dynamic; the pecking order of firms is constantly evolving with new brands challenging established manufacturers.

This study mapped the transformation of the industry through technological progress, usage and price of mobile phones in India, identifying competition issues if any. The competition analysis includes an overview of the market structure, technological advancements, estimation of concentration ratios and an entry-exit analysis. The analysis is based on data for mobile sales in India from 2007 to 2016. While there seem to be no immediate concerns related to significant market power in the overall industry, some trends stand out as concerns for the future. One among these is the high proportion of irrelevant firms in the market. Policy interventions, therefore, must allow for incentives to develop innovation capabilities within the larger set of manufacturers in the industry. Substantive value addition as proposed under the phased manufacturing plan is also likely to limit the cases of hit and run entry, which currently crowds the market.

The study also uses survey data collected through an online platform on consumer preferences to identify patterns of brand lock-in. While there is evidence that familiarity with operations and functioning of an existing smartphone determines future choices of handset brands, a large percentage of respondents also reported a willingness to switch to other models and brands for new experiences and features. Additionally, though handset prices have declined in recent years, there is a clear preference for mid-range smart phones, regardless of income categories. The demand for mobile phones in India is unquestionable. Affordable, domestic manufacturing is essential to help satiate this demand and benefit from its spillovers. The government has taken appropriate policy measures to address this; further collaboration with the industry will help accelerate this growth.

## 5.5 The Anatomy of an Internet Blackout: Measuring the Economic Impact of Internet Shutdowns

**Project Leader:** *Rajat Kathuria*

**Research Team:** *Mansi Kedia, Gangesh Sreekumar Varma, Kaushambi Bagchi and Richa Sekhani*

**Commencement:** May 2017

**Date of Completion:** April 2018

**Funded by:** Facebook (Rs. 24.72 lakh)

The rising number of Internet shutdowns is a growing concern in India, particularly when the government is leveraging the impact of a generative technology like the Internet to give a boost to *Digital India*. The Shutdown Tracker Optimisation Project (STOP) run by the civil society organisation Access Now reported in September 2017 that India with 54 shutdowns had topped the list of 30 countries where there were shutdowns in the preceding 21 months. Making use of the state level data available, this study investigated the economic impact of Internet shutdowns within India – between states for mobile only and mobile plus fixed line shutdowns. The economic impact of shutdowns was estimated using a two-step, top down methodology. First, the traffic

affected by the shutdown was estimated and then the economic cost of the traffic affected was calculated using estimated elasticities. An instrumental variable method was used to estimate elasticities for mobile and Internet use. The study found that 16315 hours of Internet shutdown in India cost the economy approximately US\$3.04 billion during the period 2012 to 2017. Each instance of shutdown was tabulated with details on the regions affected, duration and network disrupted (mobile / mobile and fixed line).

The quantitative estimates have been supplemented with a qualitative analysis based on interactions with affected stakeholders to comprehensively understand the impact across businesses and society. Interactions with field officers revealed that Internet shutdowns in India have been ordered both in anticipation of and to prevent further escalation of, law and order situations. In several cases, rumour-mongering or provocative messaging on social media and instant messaging platforms had driven decisions to order Internet shutdowns. Field level data revealed that Internet dependent sectors such as e-commerce suffer the most during shutdowns along with online freelancers who operate out of small towns and are completely dependent on a functioning Internet. The study has proposed recommendations for future thinking on minimising the incidence and impact of shutdowns in India. These recommendations include documenting Internet shutdowns, building corporate accountability, using and promoting effective counter-speech, etc.

## 5.6 The Wonder That is Telecom

**Project Leader:** *Rajat Kathuria*

**Research Team:** *Mansi Kedia, Gangesh Sreekumar Varma, Kaushambi Bagchi, Richa Sekhani and Sashank Kapilavai*

**Commencement:** April 2014

**Expected Date of Completion:** December 2018

**Funded by:** ICRIER

The story of Indian telecom's extraordinary growth, controversies and impact has remained the subject of constant media, public and academic attention for nearly a decade. At the centre of this narrative is the mobile phone, with 1.18 billion connections as on March 2018. The mobile phone has been the fulcrum on which telecom surged in India. The future holds promise but that cannot be assumed, especially since disruptive technologies need an enabling environment to flourish. ICRIER's extensive work in this evolving area since 2008 is being analytically compiled into a unique narrative that will serve as a one stop reference for those interested in the history, economics and politics of the telecom sector in India. This report will serve as ICRIER's first flagship publication. It will provide a wealth of data and rigorous statistical analysis on the impact of telecom, state of competition, state of institutions, spectrum and licensing policies, etc. It will also bring focus to contemporary topics such as internet governance, network neutrality, data privacy and protection.

ICRIER organised an International Conference on Telecommunications in April 2014, to gather insights from stakeholders on how they saw telecoms advance with reference to innovation, technological progress, government policy, international trade strategy and operator intent in India, and to the extent possible, in a global context. The conference served as the starting point for the ICRIER's first flagship "The Wonder That is Telecom." The recently released draft National Digital Communications Policy (NDCP) 2018 expands the scope of what has been conventionally classified as telecom and for good reasons. India's development goals such as smart cities, direct benefits transfers (DBT), financial Inclusion, to name a few are now inextricably linked to the telecom sector. Achieving 'broadband for all' at a minimum of 50 Mbps is a pre-requisite rightly emphasised in the new policy with a view to harness emerging technologies such as 5G, artificial intelligence and the Internet of Things (IoT).

## 5.7 Online Freelancing: Challenges, Opportunities and Impact in India

**Project Leader:** *Rajat Kathuria*

**Research Team:** *Mansi Kedia, Gangesh Sreekumar Varma and Kaushambi Bagchi*

**Commencement:** April 2017

**Date of Completion:** December 2017

**Funded by:** LIRNEasia (Rs. 19.35 lakh)

Rapidly rising digital penetration has helped fuel the online freelancing trend in India and the market has grown manifold over the past five years. According to some estimates, India is home to the second largest market of freelance professionals (about 15 million) and is next only to the US (approx 53 million). These 15 million Indian freelancers contribute to about 40 per cent of total freelance jobs offered worldwide. This study finds that the risk of job destruction due to digital technology could be converted into an opportunity through online freelancing and micro work in which at least some percentage of the millions of new and young entrants to the labour force could find livelihood opportunities. The flexibility offered by online platforms could fit in well with the demands of an evolving society that is looking for fulfilling and independent opportunities of livelihood that involve working some of the time. The research also highlights the expanding scope and scale of this ecosystem to incorporate a wider variety of skills, work types and commitment to freelancing.

Interactions with a subset of 18 platforms in India found them to be increasingly innovative. The steadily expanding ecosystem also included training facilities that ready its users for technological developments. Platforms acknowledged teething issues related to payments, bidding and navigation; accordingly algorithmic upgradations were targeted towards simplifying the use of platforms for clients and freelancers. The study also included a survey analysis of 1976 respondents – a mix of existing and potential freelancers. The survey reflected social approval as one of the primary deterrents to the growth of online freelancing in India. Additionally, there is a significant lack of awareness among students and professionals about opportunities available in online freelancing. The sector so far has grown organically without any intervention by state actors. The important policy levers include labour policy design – a focus on acknowledging online freelancing as an acceptable occupation and source of income. Efforts in this direction will help mitigate perceptions related to the unreliability of online freelancing as the only / full-time means of livelihood. This shift in perspective will be linked to the definitional choices for formal and informal employment in India. In its current form, online freelancing is neither very glamorous nor viable for the Indian labour force. It might take years of perseverance from both clients and freelancers to established trust. Unless both sides of the market work together, the growth of online freelancing will never achieve full potential.

## 5.8 Health of the Nation: India Health Report

**Editor:** *Ali Mehdi*

**Commencement:** June 2017

**Expected Date of Completion:** December 2018

**Funded by:** ICRIER

The *India Health Report* aims to bring together a number of leading experts to analyse some of the most complex challenges facing India's health system. The report is categorised into five broad themes – prioritising health, burden of disease and disability, structural determinants of health, health sector determinants and resources and health sector regulation. Under the first theme, there are chapters on right to health, health equity and responsibility for health. The second theme includes chapters on health transition, burden of disease and disability. Chapters within the third theme discuss factors responsible for the current status of health, ranging from the economic, social, spatial and the environmental. The fourth theme includes chapters on India's health policy frameworks, major actors influencing health policy in India, health sector financing, private sector in

health, India's private hospitals and a case study of the public health system in Uttar Pradesh. Finally, the fifth theme has chapters on regulation of medicines, clinical research, health insurance, medical ethics and corruption in Indian health care systems. Among the contributors are leading academics and experts on India's health system – including N R Madhava Menon, Founder-Director, National Law School of India University, Bengaluru; Sujatha Rao, Former Secretary, Ministry of Health and Family Welfare, Government of India; Leela Visaria, Honorary Professor, Gujarat Institute of Development Research; Roger Jeffery, Professor, University of Edinburgh; Santosh Mehrotra, Professor, Jawaharlal Nehru University; Rama Baru, Professor, Jawaharlal Nehru University; Somil Nagpal, World Bank, Cambodia; Smita Srinivas, Director, Technological Change Lab, Columbia University, and Kirk Smith, Professor, University of California. The manuscript has been submitted to the Oxford University Press and is expected to be published by mid-2019.

## 6. Skill Development, Entrepreneurship and Jobs

### 6.1 “Samvaad” A Dialogue on Globalisation, Equity and Jobs

**Project Co-ordinators:** *Sanjay Pulipaka and Tanu M. Goyal*

**Commencement:** September 2017

**Expected Date of Completion:** August 2020

**Funded by:** Ford Foundation (Rs. 48 lakh)

Samvaad is conceived as a dialogue forum that takes a problem-solving approach by first identifying the broad issue and then exploring solutions through discussion. Under the aegis of this project ICRIER has launched a quarterly roundtable discussion on globalisation, equity and jobs. Each roundtable will have participants including central and state-level government officers as well as academics, journalists and other relevant stakeholders. At the end of each dialogue, an issue brief will be prepared. The first Samvaad was held on December 7, 2017, on the topic “Revamping the Statistical Architecture for Robust Data on Jobs in India – A Dialogue on India's Employment Data”.

### 6.2 The Challenge of Productive Employment Creation in India

**Project Leader:** *Radhicka Kapoor*

**Research Team:** *P.P. Krishnapriya, Surbhi Ghai and Serene Vaid*

**Commencement:** November 2016

**Expected Date of Completion:** October 2018

**Funded by:** Ford Foundation (Rs. 93 lakh)

As India stands at the cusp of a demographic dividend, the maximisation of employment and not just maximisation of GDP needs to take centre stage. There is an urgent need to create an environment that is conducive to the attainment of full and productive employment and decent work for all as a foundation for sustainable development. It is widely acknowledged that India has been far from successful in creating such employment opportunities. In the given context, it is imperative to understand where jobs will come from in the future, where existing jobs are located in the economy and whether these jobs are indeed productive / good jobs. The key objective of the study is to understand the drivers of output growth and employment growth in a way that informs policy. More specifically, it examines whether certain sectors and types of firms hold the key to job creation. What has been the record of these sectors and firms in contributing to output growth and job creation so far? To the extent that their track record has been lacking, what holds these firms back from creating good jobs? Additionally, using data from the Annual Survey of Industries, the study examines variations in

the performance of the manufacturing sector across Indian states to identify the role of state level regulatory factors in explaining this heterogeneity. Understanding these questions is essential for the policy debate to rest on strong conceptual foundations.

While such an analysis is imperative to understand where and what kind of jobs have been created in a country, any study on employment in India would be incomplete without a discussion on the nature of available employment statistics. Employment statistics are a key input in designing macroeconomic policies and need to be reliably sourced, accurate and timely for policy responses to be meaningful and for validation of outcomes of policy decisions taken. However, the reliability and timeliness of employment statistics in India leave much to be desired. Real time data is missing and, unlike in the US economy where employment statistics can be tracked minutely through official data, there are very few data points to rely on in the case of India. In the absence of frequently updated data, policy planners have to extrapolate old data such as the five-year cycle for employment data from the NSSO. The government needs to focus on improving the measurement of employment and wages even as it works towards improving the ease of doing business and enhancing India's manufacturing and employment capability. An important part of this study, therefore, will be to discuss the shortfalls in employment statistics and examine alternative data sources that can perhaps give a better sense of real time changes in labour markets. This is a challenging exercise, further exacerbated by the complex employment dynamics in developing countries.

### 6.3 Programme on Global Competitiveness of the Indian Economy

**Project Co-ordinator:** *Radhicka Kapoor*

**Research Team:** *Deb Kusum Das, Amrita Goldar, Sajal Jain, Viraj Sawant, Neha Gupta, Prateek Kukreja and Kumar Abhishek*

**Commencement:** March 2017

**Expected Date of Completion:** February 2020

**Funded by:** IDFC Foundation (Rs. 150 lakh)

A third of India's population still lives in extreme poverty – possibly the highest incidence outside sub-Saharan Africa – and many people still lack access to basic services and opportunities such as sanitation, healthcare, and quality schooling. Improving the living standards of the Indian population will not only require acceleration in the growth rate but also an improvement in the economy's competitiveness in order to put growth on a more stable footing. However, despite an improvement in India's performance in key drivers of competitiveness over the last decade, significant challenges, stemming from factors such as a narrow manufacturing base, the predominance of agriculture as a source of employment, fiscal constraints, infrastructural deficiencies and low digital connectivity, remain. Addressing these challenges is imperative given the enormous gains to be made from improving competitiveness. In particular, this will help rebalance the economy and move the country up the value chain so as to ensure more solid and stable growth; this, in turn, could result in more employment opportunities for the country's rapidly growing population. Over the course of this project, three studies will be undertaken to provide key insights on how to improve the competitiveness of the Indian economy. These studies will look at the issue of global competitiveness through the lens of job and livelihood creation. Work on two studies has commenced.

#### 6.3.1 *Embodied Jobs in the Renewable Power Sector and its Competitiveness Links*

*Amrita Goldar, Sajal Jain and Viraj Sawant*

*Ongoing*

The study examines two aspects of the renewable energy sector – its impact on livelihoods and its impact on competitiveness. The study focuses on the calculation by employing the social accounting matrix (SAM) framed

on the national input-output (IO) table. The various sectors in the IO table are broken down to incorporate the RE components and facilitate the construction of a social accounting matrix for the study. The revival of manufacturing industry and increasing its share in the overall GDP and exports are critical to the growth and creation of employment in India. To analyse the impact of renewable energy (RE) on competitiveness, the focus of the study is on high value manufacturing (HVM) industries. There are two approaches employed to identify HVMs, viz., ‘outcome related dimensions’ and ‘enabling dimensions’. Outcome related dimensions take into consideration value added of three types – financial, social, and strategic. The other approach of ‘enabling dimensions’ consists of the skill level of labour, technological intensity, capital intensity, process flexibility, etc.

These theoretical parameters have been used to identify the HVMs in the states under observation (Gujarat, Tamil Nadu, & Maharashtra). The HVMs are defined as those that create more than just financial value by delivering value for more of their stakeholders by contracting for capability, triggering innovation, establishing higher standards and eventually contributing to a sustainable society. It thus becomes important that focused policies are designed to develop HVM industries. Understanding this link will emphasise the importance of RE in contributing to India’s lagging manufacturing sector and thereon overall competitiveness of the economy.

To build the competitiveness model at the firm level, specific case studies have been selected. High energy consuming industrial clusters were identified in each of the three states studied. All three states boast of a naturally rich and accommodating energy landscape, aiding the process of a faster switch to renewable alternatives. Extensive fieldwork in the three states was conducted to test and validate the developed methodology. This involved meeting not just industrial stakeholders but also the electricity regulatory and development authorities. While the econometric model developed as part of the study will be applied to a database of Indian firms (ASI), qualitative insights gathered during the state-level surveys will be used to enrich the analysis and results.

### 6.3.2 *Domestic Value Added and Foreign Content in India’s Exports and its Impact on Export Competitiveness, Global Value Chains and Job Creation*

*Deb Kusum Das, Neha Gupta, Prateek Kukreja and Kumar Abhishek*  
Ongoing

The global production process is highly fragmented with different stages of production being carried out in developed as well as developing countries. Rising imported content signifies more linkages with global value chains (GVCs) and is becoming increasingly important for enhancing competitiveness of manufacturing exports. From a policy perspective, there is now greater need to understand the value addition of an economy in the context of international trade, especially as changes in bilateral exchange rates can affect a country’s trade balance. The study focuses on improving the competitiveness of Indian manufacturing through exports and GVCs. This involves an analysis of India’s value added and the import content embodied in its exports, identification of key intermediate product-market combinations for exports to enable India achieve competitiveness, and the resultant impact on job creation through higher exports and integration into GVCs. The study uses wide range of national as well as global databases and rigorous methodologies.

## 7. Asian Economic Integration with Focus on South Asia

### 7.1 Deconstructing Development Assistance: India and Nepal

**Project Leader:** *Rajat Kathuria*

**Research Team:** *Sanjay Pulipaka and Tanu M. Goyal*

**Commencement:** September 2017

**Date of Completion:** July 2018

**Funded by:** Oxfam India (Rs. 18.53 lakh)

Historically, the volume of India's overseas development assistance has been significantly smaller in comparison to foreign aid from traditional donor countries. However, there has been an increase in this regard in recent years and development assistance is gradually emerging as an important pillar of the country's foreign policy. India's neighbourhood and specifically countries such as Nepal have been significant beneficiaries of India's development assistance. India's financial and development assistance to Nepal dates back to the 1950s with Nepal being one of the earliest recipients of India's assistance. Over the decades, India has built a strong aid mechanism, providing grant assistance to Nepal in meeting its development goals, be it large infrastructural projects or small-scale community-based projects at the grass-root level in the areas of infrastructure, health, water resources, education, and rural and community development. Given this background, this project a) assesses India's development assistance / engagement in the education sector in Nepal and suggests measures to improve India's assistance programme and outcomes in the sector, and b) evaluates the infrastructure connectivity projects between India and Nepal based on the impact they had on regional and social inequities. A section is also devoted to examining the likely impact of proposed connectivity projects (road and rail).

### 7.2 Developing Gender-responsive Trade Facilitation Measures to Support Women's Entrepreneurship in BBIN

**Project Leader:** *Nisha Taneja*

**Research Team:** *Sanjana Joshi and Samridhi Bimal*

**Commencement:** February 2017

**Date of Completion:** September 2017

**Funded by:** Department of Foreign Affairs and Trade, Australian High Commission and The World Bank (Rs. 70.50 lakh)

The project was one of the first systematic initiatives to develop an analytical framework to identify the challenges and impediments faced by women in engaging in cross-border trade, with particular emphasis on demonstrating the importance of gender mainstreaming for trade facilitation measures in South Asia. The focus of the study was on the Bangladesh-Bhutan-India-Nepal (BBIN) region – specifically on the North-East region of India and Northern region of West Bengal and its cross-border trade with Bangladesh, Bhutan and Nepal. In this regional context, the study classified cross-border trade into three categories – formal trade through land customs stations (LCS), trade through border *haats* and informal trade transactions. The extent of women's participation in these categories was examined and the major impediments and barriers that hinder the participation of women in the three categories of cross-border trade were identified. The study has suggested concrete policy measures to mainstream gender in the implementation of multilateral and regional trade facilitation measures and address hurdles faced by women in formal cross-border trade.

As part of the project, ICRIER organised a workshop titled “Developing Gender-responsive Trade Facilitation Measures to Support Women's Entrepreneurship in BBIN” in New Delhi in April 2017. The final report has been published as an ICRIER working paper.

### 7.3 India's Act East Initiative: Enhancing India-Myanmar Trade and Connectivity

**Project Leader:** Nisha Taneja

**Research Team:** Sanjana Joshi and Samridhi Bimal

**Commencement:** August 2017

**Date of Completion:** May 2018

**Funded by:** Department for International Development (Rs. 84. 23 lakh)

Strengthening trade and connectivity between India's north-eastern states and Myanmar is a major building block in India's *Act East* Initiative. To enhance trade between the north-eastern states and Myanmar, the Indian Government liberalised border trade in 2015 by shifting completely from a system of barter trade in a limited number of items to normal trade in all commodities. This project examined the effectiveness of this trade enhancing measure on bilateral trade. Based on desk research, secondary data analysis and a primary survey conducted in the north-eastern states and Myanmar, the study finds that formal trade has in fact declined. The lack of information on the new trade policy measure, inability on the part of businesses to meet the requirements of formal trade, and the lack of an institutional structure supporting formal trade were some of the reasons identified for the poor performance of formal trade. On the other hand, the study finds that there has been an increase in informal cross-border trade. The study recommends that unless policy changes are accompanied by improvements in institutions facilitating trade and better connectivity, formal trade between India and Myanmar will remain marginal to the overall trade between the two countries. The study was carried out in collaboration with experts from the Northeast and Myanmar and the findings were disseminated at a conference held in New Delhi in April 2018. The final report will be published shortly.

### 7.4 India's Trade with Sri Lanka, Nepal and Bhutan

**Project Leader:** Nisha Taneja

**Research Team:** Taher Nadeem

**Commencement:** March 2017

**Date of Completion:** July 2018

**Funded by:** Department of Commerce, Ministry of Commerce and Industries, Government of India (Rs. 22 lakh)

The study on India-Sri Lanka trade sought to provide inputs into the proposed Economic and Technical Co-operation Agreement between the two countries. In particular, it examined bilateral trade trends, identified items and sectors in which there is potential to enhance trade and recommended steps that can be taken to prune the sensitive lists (list of tariff lines at the HS 6-digit level in which no tariff concession is given to the partner country under the FTA) that each country has for the other. Further, the efficacy of the tariff rate quota imposed on India's imports of tea and readymade garments from Sri Lanka was evaluated and it has been recommended that the Indian side reconsider the imposition of quota on imports from Sri Lanka. Finally, the issue of non-tariff barriers raised by the Sri Lankan side has also been examined in this study.

In the case of Nepal, the study provided inputs for the India-Nepal Treaty, which is due for renewal in 2018. The study examined trade trends and assessed further trade possibilities. Issues related to market access and transit for Nepal were also examined.

For the study on India-Bhutan trade, an analysis was conducted to examine trends in trade, composition of trade, trade potential and Indian investment in Bhutan. The study examined the impact of key issues related to cross-border movement of goods such as movement of goods through India for third country export / import, movement of goods between Bhutan and Bangladesh through India and between Bhutan and India. The study made recommendations on measures needed to address these issues and enhance trade between India and Bhutan.

The reports on India-Bhutan and India-Sri Lanka have been submitted to the Ministry of Commerce.

## 7.5 South Asia Regional Trade and Integration Programme: Independent Performance Evaluation

**Project Leader:** *Pankaj Vashisht*

**Research Team:** *Anwarul Hoda and Loknath Acharya*

**Commencement:** March 2018

**Date of Completion:** June 2018

**Funded by:** Oxford Policy Management (Rs. 30 lakh)

The South Asia Regional Trade Integration Programme (SARTIP) is a six-year programme (2012 to 2018) designed as a single co-ordinated initiative to support three multilateral organisations working to promote trade and integration in South Asia. The original four-year budget allocation was £21.21 million. It provides UK grant funding to the World Bank (WB), the Asian Development Bank (ADB) and the International Finance Corporation (IFC) to support preparatory studies for projects to

- improve electricity connectivity
- improve trade and transport processes across all sub-regions
- improve the investment policy environment for regional investments
- strengthen the evidence base on the links between regional economic integration and poverty reduction and
- improve communication and co-ordination among SARTIP members and enhance programme management efficiency.

ICRIER, in association with Oxford Policy Management and International Economics, has been assigned the task of evaluating the SARTIP programme. The purpose of this process evaluation is both to demonstrate accountability – whether the programme is on track to meet its outcomes – and to generate learning for this and subsequent programmes as well as for the development of future regional trade initiatives by DFID.

## 7.6 East Asia Research Programme

**Project Leader:** *Sanjay Pulipaka*

**Research Team:** *Saranya Sircar*

**Commencement:** March 2017

**Expected Date of Completion:** Ongoing

**Funded by:** Tata Trusts (Rs 45.51 lakh)

As part of the East Asia Research Programme, ICRIER has initiated the ‘Asian Values and Foreign Policy’ project that aims to examine whether there is validity in the concept of ‘Asian values’ and its implications for the human rights agenda as well as for foreign policies. Under this initiative, a workshop on “Values, Foreign Policy and Universality” was organised to reflect on the interactions between normative frameworks and external foreign policies of countries and regional organisations. The workshop brought together participants from Germany, Russia, Singapore, China, Japan, Myanmar, Sweden, Portugal, and India among others. Further, a web portal has been initiated to facilitate conversations on the interface between values and foreign policy among researchers of rising powers such as India, China and other countries.

The East Asia Research Programme also continued its role as a forum for scholars to reflect on political and security issues in the East Asian region. The research and discussion themes included the regional balance of power, regional security architecture, multiple frameworks of engagement (bilateral / trilateral / quadrilateral), territorial / maritime disputes and non-traditional security issues. This year, the programme organised a series of panel discussions on traditional and non-traditional security issues with eminent scholars as well as with young scholars in collaboration with the Japan Foundation, New Delhi.

## 7.7 India-Pakistan Trade

**Project Leader:** *Nisha Taneja*

**Research Team:** *Sanjana Joshi, Samridhi Bimal and Varsha Sivaraman*

**Commencement:** August 2016

**Date of Completion:** December 2017

**Funded by:** United States Institute for Peace (USIP), WC (Rs. 59.85 lakh)

Significant measures were undertaken by India and Pakistan to liberalise trade in 2012. In particular, Pakistan's decision to permit all items to be imported from India except for a few items was expected to bring about a quantum increase in bilateral trade. The objective of the project was to examine whether there has been substantial increase in trade since 2012. The study also examined recent trade trends and analysed whether new products have entered the trading basket after Pakistan shifted from a positive list to a negative list. It also assessed whether goods traded informally have shifted to the formal channel and examined the impact of some trade policies adopted by the two countries on bilateral trade.

The key finding of the study was that there has been trade liberalisation has had only a limited impact on the volume of trade between the two countries. The shift from a positive to a negative list has not resulted in any major increase in new exports. The share of new commodities in total exports has shown a rise of only nine percentage points between 2012-13 and 2016-17. However, there has been a diversification in the trade basket in terms of the number of new items traded. In 2012-13, only 410 new commodities were exported; this number increased to 753 in 2016-17. The study also found that the imposition of regulatory duties and compliance with standards has not affected India's exports to Pakistan. The study concluded by making policy recommendations that could enhance and facilitate bilateral trade between India and Pakistan.

The study was carried out in collaboration with the Sustainable Development Policy Institute (SDPI), Pakistan. The findings were disseminated at a conference in Kathmandu in November 2017. The final report has been published as an ICRIER working paper.

## 7.8 Strategies for Increasing India's Exports to the UAE

**Project Leader:** *Nisha Taneja*

**Research Team:** *Taher Nadeem; Shravani Prakash (External Consultant)*

**Commencement:** March 2017

**Date of Completion:** August 2018

**Funded by:** Department of Commerce, Ministry of Commerce and Industries, Government of India (Rs. 9 lakh)

India and the UAE have agreed to make a commitment to increase bilateral trade by 60 per cent in the next five years. The objective of the study was to develop a comprehensive strategy to boost India's exports to the UAE. The study analysed current trends in India's trade with the UAE, with particular emphasis on analysing exports in products that have shown high growth and those that have dropped off the export basket over the years. The study estimated the export potential that can be realised, analysed current exports and potential opportunities for India's exports to the UAE in different services sectors and identified the regulatory impediments to increasing trade in these services. The final report has been submitted to the Ministry of Commerce.

## 8. Multilateral Trade Negotiations and FTAs

### 8.1 Supporting Indian Trade and Investment for Africa: Independent Project Evaluation

**Project Leader:** *Pankaj Vashisht*

**Research Team:** *Anwarul Hoda and Durgesh K. Rai*

**Commencement Date:** November 2016

**Expected Date of Completion:** December 2020

**Funded by:** Oxford Policy Management (Rs. 40 lakh)

Supporting Indian Trade and Investment for Africa (SITA) is a DFID-funded aid for trade (Aft) and value-chain programme. It was initiated in 2014 to harness Indian resources (knowledge, technology, capital) to increase value-added exports from selected African countries to the Indian and third country markets. The selected programme countries are Ethiopia, Kenya, Rwanda, Tanzania and Uganda. The programme is designed and implemented by the International Trade Centre (ITC). ICRIER, in association with Oxford Policy Management and International Economics, has been assigned the task of evaluating the SITA programme. The evaluation will assess whether the SITA idea works, and whether the worth, merit and value of the SITA programme is as conceptualised and designed. This includes learning about what does and does not work in DFID's first South-South Aft and value chain programme, whether the programme has been successful in harnessing Indian resources (expertise, technology, capital) for the promotion of value-added African exports, whether it has been successful in increasing access to the Indian and regional and third country markets, whether it has been successful in catalysing greater Indian FDI in programme countries.

### 8.2 WTO and Trade Policy

**Project Leader:** *Anwarul Hoda*

**Research Team:** *Durgesh K. Rai*

**Commencement:** August 2009

**Expected Date of Completion:** Ongoing

**Funded by:** ICRIER

The World Trade Organization (WTO) and Trade Policy research and capacity building project has been developed to enhance trade policy and WTO research at ICRIER and to provide Indian policymakers with a deeper understanding on how to take forward India's interests in the multilateral trading system.

#### 8.2.1 Agreement on Fishery Subsidy

*Anwarul Hoda*

*Ongoing*

One of the few areas of negotiations in which there is some progress at the WTO is that of fishery subsidy, which is of topical interest currently in the context of depleting fish stocks around the world. The proposed agreement came up for consideration at the Eleventh Ministerial Conference of the WTO held at Buenos Aires in December 2017, but the debate remained inconclusive. India has strong concerns in the area in view of the need to protect the livelihood of artisanal fishermen. This study aims to explore all relevant issues that need to be factored into India's stance during the negotiations.

### 8.2.2 *Public Stockholding for Food Security in Developing Countries*

Anwarul Hoda

*Completed*

In the last five years or so, public stockholding for food security has emerged as an issue in the WTO and India has projected it as the issue that concerns it the most. The problem has arisen because the rules in the Agreement on Agriculture appear to place constraints on the operation of the programme of public stockholding for food security in developing countries. The WTO Members had made a commitment to agree on a permanent solution to the problem by the 11<sup>th</sup> Session of the Ministerial Conference, which was held in December 2017 at Buenos Aires. Although the subject was discussed at that session, no conclusion could be reached.

This policy paper takes stock of the current status of negotiations on the issue, examines the origins of the problem and critically reviews the proposals that have been put forward to resolve it. It takes the view that the proposals made by the G33 on public stockholding, which are in reality proposals to secure extra flexibility for providing market price support, have little chance of being accepted at a time when the general sentiment worldwide favours a reduction in trade-distorting market price support. It recommends that India submit new proposals based on economic logic and reasoning. The first suggestion is that a proposal that non-subsidising Members must be allowed to neutralise inflation fully in fixing the support price from year to year should be made. The second suggestion is that it must be recognised that an administered price that is equal to or below the average international prices is non-distorting and therefore, consistent with the requirements of the WTO Agreement. The paper also argues that it is not necessary for India to push hard on the issue in the light of the guarantee given to developing country Members against disputes being raised against them in the WTO. India should submit these proposals and wait for their compelling logic to be recognised in due course.

### 8.2.3 *Tariff Negotiations and Renegotiations under the GATT and the WTO: Procedures and Practices (Second edition)*

Anwarul Hoda

*Completed*

In response to a request received from the WTO Secretariat, work was undertaken to revise the above work, with a view to bringing it up to date with developments since the first edition was published in 2001 by the WTO Secretariat. The publication describes the procedure and practices as they have evolved since the GATT was established in 1947. It contains an analytical account of tariff negotiations in successive rounds of multilateral trade negotiations, as well as of those held in the context of accession to the GATT or the WTO and in bilateral and plurilateral negotiations. It also gives an account of renegotiations, which is allowed in the rules and outlines the technical aspects, such as rectification, consolidation and implementation, of the harmonised system.

The revised study updates the work, taking into account the progress in all areas up to the end of 2017. The new developments of significance captured in this edition are the ITA Expansion Agreement, accessions of a number of new members to the WTO including two major trading nations, China and Russia, tariff negotiations in agriculture and non-agricultural market access under the Doha Development Agenda, renegotiations in the context of the successive enlargements of the European Union, and the implementation of changes in the WTO members' schedule of commitments owing to periodic revisions of the harmonised system. The publication is in the final stage of production with Cambridge University Press.





# CONFERENCES

## Enhancing Trade and Connectivity between India and Myanmar

April 23, 2018



L to R: Nisha Taneja, Shankar Acharya, Jitendra Singh and Moe Kyaw Aung at the conference on *Enhancing Trade and Connectivity between India and Myanmar*

The conference on *Enhancing Trade and Connectivity between India and Myanmar* was organised by ICRIER on April 23, 2018, at New Delhi as part of the DFID funded project on India-Myanmar cross border trade and connectivity that seeks to examine the effectiveness of the trade policy measure adopted by India in 2015 to switch from barter trade to normal trade, the persisting impediments at the India-Myanmar border and to suggest how these can be addressed for enhancing cross-border normal trade.

Delivering the keynote address at the conference, Dr. Jitendra Singh, Hon'ble Union Minister of State (IC), Ministry of Development of North-Eastern Region, said that India's "Act East" policy is crucial to the entire South East Asia and Myanmar is one of the key pillars of this policy. Noting that many Indian north-eastern states share a common border with Myanmar, Dr. Singh emphasised that to "Act East" effectively beyond the eastern borders, it is essential to first act east effectively proximal to the borders by promoting the potential of the region on this side of the border. In this context, the Hon'ble Minister referred to a paradigm shift in the government's approach towards the Northeast, particularly with regard to its development and highlighted the progress in addressing the constraints of connectivity and transport that impede the growth of trade and investment in the region. Dr. Singh appreciated ICRIER's effort to inform policymakers about the on-ground issues being faced by business persons from India and Myanmar and said that he looked forward to receiving suggestions to increase India-Myanmar border trade. In his remarks, H. E. Mr. Moe Kyaw Aung, Ambassador of Myanmar to India, noted that Myanmar plays an important role in ASEAN-India connectivity and this has also benefited India-Myanmar relations. Ambassador Aung hoped for support and co-operation from India to facilitate project financing and quick implementation.

The inaugural session was followed by presentations by Nisha Taneja, Professor, ICRIER, Tin Htoo Naing, Director, CEES, Myanmar, and Gurudas Das, Professor, National Institute of Technology, Silchar. The panel discussion on India-Myanmar Border Trade and Connectivity, chaired by Rajneesh, Joint Secretary, Department of Commerce, Government of India, highlighted key issues such as the lack of awareness of trade policy changes among traders, delay in infrastructural projects, and the need to develop products in which the northeastern states have a comparative advantage.

The second session focused on the way forward and the discussions underlined the importance of developing special economic zones and increasing intra-regional investment, tapping into medical tourism between the NER and Myanmar,

enhancing border trade infrastructure and investments in education. The speakers were Manoj Pant, Director, Indian Institute of Foreign Trade (IIFT), Narendra Taneja, Energy Expert & National Spokesperson, BJP, Aung Ko Ko, Member, Economic Committee, National League for Democracy, Myanmar, V. S. Seshadri, Former Indian Ambassador to Myanmar, Shwe Hein, Secretary, Thilawa Special Economic Zone Management Committee, Myanmar, Alemtemshi Jamir, Member, Nationalist Democratic Progressive Party, Nagaland and Former Chief Secretary Nagaland, Biren Nanda, Senior Fellow, Delhi Policy Group, and Palin Khundongbam, Chairman-cum-Managing Director, Shija, Manipur.

### 19<sup>th</sup> Annual Neemrana Conference

December 15-17, 2017



L to R: Isher Judge Ahluwalia, Arvind Subramanian and Anne O. Krueger at the 19<sup>th</sup> Annual Neemrana Conference

The Neemrana Conference is the signature event in ICRIER's calendar of policy focused interactions between India and the United States. Hosted at the picturesque Neemrana Fort Palace Resort in Rajasthan every year, this conference brings together top level Indian policy makers, academics, opinion makers and captains of industry to interact with leading researchers and policy makers from the USA. The partner institution for the annual event from the United States is the National Bureau of Economic Research (NBER). The Indian partners are ICRIER and the National Council of Applied Economic Research (NCAER) and the two institutions take turns to host the conference every year. The conference provides an opportunity for intensive and frank dialogues on current issues relating to economic policy and triggers stimulating discussion on areas of further study.

The 19<sup>th</sup> Annual Neemrana Conference was organised jointly by ICRIER, NBER and NCAER at Neemrana Fort-Palace, Rajasthan, during December 15-17, 2017.

The discussions at this two-day conference were structured into sessions on the world economy, banking and finance, agriculture, economic growth and financial inclusion, urbanisation, public finance and macro economy, labour market and the challenge of job creation, education and skill development, and growth, inequality and inclusion. A special address was delivered by Arvind Subramanian, Chief Economic Advisor, Government of India, on the state of Indian economy. Dr Subramanian spoke about the 'decoupling' of India from the other major economies in terms of growth with India witnessing a deceleration while other countries are showing signs of a steady growth cycle. On the policy agenda, he focused on the need to follow through with reforms and recapitalisation to bolster the economy. In addition, a lunch talk was delivered by Lars Hansen, David Rockefeller Distinguished Service Professor of Economics, Statistics, University of Chicago, on the uncertainty in assessing the economic impact of climate change. Dr. Hansen outlined the



L to R: Douglas W. Elmendorf, Montek Singh Ahluwalia, N. K. Singh and Karen Dynan at the 19<sup>th</sup> Annual Neemrana Conference

assumptions underlying quantitative models that study the dynamic impact of climate change, including how they are typically misspecified and exhibit significant uncertainty. He stressed the importance of reducing complex models to more tractable specifications that outline clear policy agendas.

Several eminent economists and policy makers participated in the conference.

Participants from NBER included Anne Krueger, Senior Research Professor of International Economics, Johns Hopkins University; Douglas W. Elmendorf, Dean, John F. Kennedy School of Government, Harvard University; Karen Dynan, Professor of Economics, Harvard University; Brent Neiman, Professor of Economics, Booth School of Business, University of Chicago; Gabriel Chodorow-Reich, Assistant Professor of Economics, Harvard University; Alan L. Olmstead, Distinguished Research Professor of Economics, University of California; Joshua D Rauh, Professor of Finance, Stanford University; Owen Zidar, Assistant Professor of Economics, Booth School of Business, University of Chicago; Karthik Muralidharan, Associate Professor of Economics, University of California, San Diego; Amanda Pallais, Associate Professor of Political Economy and Social Studies, Harvard University; Abhijit Banerjee, Ford Foundation International Professor of Economics, MIT; Hilary Hoynes, Professor of Economics and Public Policy, University of California, Berkeley, and Benjamin Moll, Associate Professor of Economics and International Affairs, Princeton University.

The Indian participants included N. K. Singh, Chairperson, 15<sup>th</sup> Finance Commission, Government of India; Montek Singh Ahluwalia, Former Deputy Chairperson, Planning Commission; Isher Judge Ahluwalia, Chairperson, ICRIER Board; Uday Kotak, Executive Vice Chairman and MD, Kotak Mahindra Bank and Member, ICRIER Board; Pramod Bhasin, Founder Genpact Ltd and Member, ICRIER Board; Viral Acharya, Deputy Governor, RBI; Subir Gokarn, Executive Director for India, Bangladesh, Bhutan and Sri Lanka, IMF; Ashok Gulati, Infosys Chair Professor for Agriculture, ICRIER; Surjit S. Bhalla, Senior India Analyst for the Observatory Group and Chairman, Oxus Research and Investments; Rajat Kathuria, Director & CE, ICRIER; Shekhar Shah, Director General, NCAER; K.P. Krishnan, Secretary, Ministry of Skill Development and Entrepreneurship, Government of India; P. Jayendra Nayak, Chairman of the Board of Directors, Ayana Renewable Power; Reuben Abraham, CEO and Senior Fellow, IDFC Institute; Junaid Ahmad, India Country Director, World Bank; M Govinda Rao Professor Emeritus, National Institute of Public Finance and Policy; Sajjid Z Chinoy, Chief India Economist, J P Morgan; Radhicka Kapoor, Senior Fellow, ICRIER; Pankaj Vashishth, Senior Fellow, ICRIER; and Krishnamurthy Subramanian, Associate Professor of Finance and Executive Director, Centre for Analytical Finance, Indian School of Business.

## Experiences and Challenges in Measuring Income, Inequality, and Poverty in South Asia

November 23-25, 2017

The conference on *Experiences and Challenges in Measuring Income, Inequality, and Poverty in South Asia* was organised by ICRIER jointly with the International Association for Research on Income and Wealth (IARIW) with support from the World Bank. The objective of this conference was to advance understanding of issues related to income, inequality, and poverty in South Asian countries (India, Pakistan, Bangladesh, Sri Lanka, Nepal, Bhutan, Afghanistan, and the Maldives) through an examination of past experiences related to the measurement of trends in these variables and the identification of future measurement challenges. In total, close to thirty original research papers were presented by scholars and academicians including Lucas Chancel, Paris School of Economics; Biswanath Goldar, Institute of Economic Growth, Delhi; C. Veeramani, IGIDR, Mumbai; A.C. Kulshrestha, Central Statistics Office, India, and M. Jahangir Alam Chowdhury, University of Dhaka, Bangladesh.



L to R: Martin Rama, Rajat Kathuria and Barbara M. Fraumeni at the conference on *Experiences and Challenges in Measuring Income, Inequality, and Poverty in South Asia*

The conference began with opening remarks by Barbara Fraumeni, Past President IARIW, Central University for Economics and Finance, China, and Isher Judge Ahluwalia, Chairperson, Board of Governors, ICRIER. In his keynote address, Martin Rama, Chief Economist for South Asia, World Bank, spoke on the major issues and challenges in measuring poverty and inequality in South Asia. This was followed by a series of technical sessions, where scholars and academicians presented their original work in the areas of inequality, labour markets, health and food, education, trade, income and growth and poverty in South Asia. In a special dinner talk, T. C. A. Anant, Chief Statistician of India, spoke on the measurement challenges of India's GDP. Dr. Anant stressed the need to reduce the current paucity of data needed to correctly estimate of the GDP of the country. He also spoke of the institutional challenges encountered in the process. The discussion was chaired by the Former Deputy Chairman of Planning Commission, Government of India, Montek Singh Ahluwalia. The conference concluded with a panel discussion on "Challenges facing National Statistical Offices in South Asia". The panelists were S.V. Ramana Murthy, Deputy Director General, Central Statistics Office, India, and D. Dilshanee Deepawansa, Department of Census and Statistics, Sri Lanka; the session was chaired by Pronab Sen, Former Chief Statistician of India.

## India Pakistan Trade Continues despite Tensions and the Road Ahead

November 17, 2017

ICRIER in collaboration with the Sustainable Development Policy Institute (SDPI) organised a conference titled *India Pakistan Trade Continues despite Tensions and the Road Ahead* on November 17, 2017, in Kathmandu, Nepal. The conference participants included well known experts and scholars as well as business representatives from the two countries. The conference was part of ICRIER's project on "India-Pakistan Trade" that endeavours to analyse the reasons why the huge gap between potential and actual trade between India and Pakistan remains despite substantial trade normalisation set in motion in 2012.



L to R: Abid Suleri, Nisha Taneja, Posh Raj Pandey at the conference on *India Pakistan Trade Continues despite Tensions and the Road Ahead*

The conference discussions were structured around two main themes – the current status of India-Pakistan bilateral trade, and connectivity and future prospects. The presentation by the study team at ICRIER focused on recent trends in bilateral trade between India and Pakistan, top commodities traded between the two countries, and an analysis of three Indian commodities whose exports to Pakistan have declined the most. The presentation noted that there has been very little increase in India's exports to Pakistan after the change in the latter's import policy in 2012. The presentation also included findings on transaction costs of trading across different modes. The presentation by the research team at SDPI gave a perspective from Pakistan as to what the major impediments while trading with India are. The presentation identified current obstacles and hurdles in the way of normalising India-Pakistan trade relations. The presentations were followed by a roundtable discussion on enhanced visa restrictions, persisting infrastructure and connectivity deficit along with poor awareness amongst traders with regard to non-tariff barriers. The issue of the impact of the goods and services tax (GST) introduced by India from July 2017 on India-Pakistan trade was also raised. The conference ended on a positive note with participants emphasising the importance of B2B engagement in confidence building and keeping dialogue channels open along with encouraging studies on bilateral trade that would help address impediments encountered by businesspersons in the two countries.

## Re-imagining Globalisation: Views from G20 Countries

June 08-09, 2017

The 9<sup>th</sup> G20 conference organised by ICRIER focused on the challenges to globalisation. Discussions at the conference were structured around six themes: global economic growth and policy co-ordination; evaluating the global financial architecture and regulatory practices: progress and way forward; climate financing for sustainable growth; trade and investment in an era of protectionism; migration and its discontents; and the role of think tanks in fostering co-operation among the G20 countries.



L to R: Arvind Subramanian and Isher Judge Ahluwalia at the 9<sup>th</sup> G20 conference on *Re-imagining Globalisation: Views from G20 Countries*

The conference featured eminent speakers from academia, think tanks, government and industry from India and abroad; they included Arvind Subramanian, Chief Economic Adviser, Government of India; Isher Judge Ahluwalia, Chairperson, ICRIER; Viral Acharya, Deputy Governor, Reserve Bank of India; Naina Lal Kidwai, Chair, FICCI Sustainability, Energy & Water Council & Chairman, Max Financial Services Ltd.; Montek Singh Ahluwalia, Former Deputy Chairman of the Planning Commission, India; Naoyuki Yoshino, Dean, Asian Development Bank Institute (ADBI); Y. V. Reddy, Former Governor, Reserve Bank of India; Heribert Dieter, Senior Fellow, The German Institute for International and Security Affairs; Rakesh Mohan, Senior Fellow, Jackson Institute for Global Affairs, Yale University; Ashima Goyal, Professor, Indira Gandhi Institute of Development Research (IGIDR); Errol D'Souza, Professor, Indian Institute of Management Ahmedabad (IIMA); Chetan Subramanian, Professor, Indian Institute of Management Bangalore; Chetan Ghate, Member, Monetary Policy Committee, Reserve Bank of India; Saurabh Garg, Joint Secretary, Department of Economic Affairs, Government of India; Irudaya Rajan, Professor, Centre for Development Studies (CDS); Sebastian Saez, Lead Economist, The World Bank, India; Sher Singh Verick, Deputy Director, Decent Work Team for South Asia and Country Office – India, International Labour Organization (ILO); and Matthias Helble, Senior Economist and Co-Chair Research, ADBI.

On the issue of global economic growth and G20 policy co-ordination, it was pointed out that the G20 provides a platform where countries can come together and co-operate to protect global public goods. The G20 can help manage and prevent crises through international co-operation. Economic outcomes for countries were better when their fiscal policies and crisis responses were well co-ordinated than when they functioned unilaterally. In the discussion on the role of think tanks, the need to engage in policy solutions on a broad array of cross border challenges relating to financial stability, tax erosion, protectionism, global warming and migration were highlighted. Financing climate change mitigation / adaptation projects was another major issue for discussion, with several participants expressing disappointment with current levels of funding for such projects. Policy uncertainties regarding trade and migration were other areas of concern. Participants noted that addressing these concerns requires that countries open up to one another rather than focus solely on their domestic markets.





# SEMINARS & DISCUSSIONS

## Designing for Sustainability in Human Settlements: Methods and Perspectives

June 28, 2018

The seminar on the theme '*Designing for Sustainability in Human Settlements: Methods and Perspective*' was delivered by Seema Sharma, Assistant Professor, Vivekananda College, University of Delhi, and Arnab Bose, Fellow, Jindal Institute of Behavioural Sciences. The event was chaired by Saon Ray, Senior Fellow, ICRIER.

The speakers elaborated on the severe ecological and socio-ecological challenges faced by urban centres in India. According to them, a decentralised approach following the 'resilience framework' at the neighbourhood level is useful to address complex matters in a manageable manner, leveraging the use of technology for problems that are distributed. The speakers further noted that in emerging economies, central governments are often not in sync with local governments because of issues of complexity and trust. This complexity can be managed by artificial intelligence and issues related to trust can be managed by distributed ledger technology. Social and ecological resilience achieved by local institutions that are distributed and decentralised can also address concerns such as employment opportunities, empowerment of women and ecological degradation (including air quality).

## Application of Innovative Technologies for Promoting Financial Inclusion in India

June 15, 2018

A roundtable consultation with relevant stakeholders was organised as part of the study on the '*Application of Innovative Technologies for Promoting Financial Inclusion in India*'. The study is part of ICRIER's engagement with the Department of Economic Affairs, Government of India, in support of the country's agenda for the 2018 Buenos Aires G20 summit.

The session was chaired by Rajat Kathuria, Director & CE, ICRIER, and was attended by experts from industry, academia and other stakeholders. The presentation on the findings of the study by Saon Ray, Senior Fellow, ICRIER, focused on the relevance of emerging technologies, especially blockchain and artificial intelligence (AI), for financial inclusion and highlighted the need for dialogue and co-operation among G20 countries in this regard.

The study was well received and the discussions focused on the opportunities and challenges in using innovative technologies. Guests shared their experience in using these technologies and provided insights into the challenges the fintech industry faces. It was pointed out that though technology can be a great enabler, the Indian scenario still warrants more work on the financial literacy front. The relevance and various use cases of blockchain technology were also discussed in detail. The government has been very supportive to the industry so far but there is urgent need to come up with a coherent national policy and address issues like skill paucity, standardisation, barriers to market entry, consumer protection, etc. The participants also noted that the G20 can greatly aid ongoing efforts in these areas. There is much scope for mutually beneficial collaboration since development of credible use cases and regulatory responses to these technologies are still a work in progress across the globe.

## Promoting Transfer of Technology to Enhance Resilience to Climate Change

June 12, 2018

This stakeholder consultation was organised as a part of the study commissioned by the Ministry of Finance, Government of India. The objective of the study is to highlight the importance of technology transfer among the G20 for enhancing resilience to climate change and recommend means and mechanisms for such co-operation. The study aims to remain relevant for all member countries, while aligning with India's interest.

In his opening remarks Rajat Kathuria, Director & CE, ICRIER, outlined the importance of technology transfer and stressed the need for finance to improve access to technologies for developing and underdeveloped countries. He further added that India should take the lead in highlighting the need for initiatives in this regard within the G20, particularly during the process of framing the agenda for deliberations. On behalf of the research team, Shubham Sharma, Consultant, ICRIER presented the findings of the study. He discussed the current status of technology sharing platforms such as Climate Technology Centre & Network (CTCN), discussions in the G20 and The United Nations Framework Convention on Climate Change (UNFCCC) pertaining to the transfer of technologies. The study has identified technologies such as batteries (electric vehicles), hydrogen fuel cell, energy efficiency in buildings, solar PV, carbon capture and storage, etc., as the key technologies based on an analysis of the OECD patent database. Energy, transport, energy efficiency in buildings, waste, etc., emerged as the dominant sectors in terms of the number and rate of patents filed. The study also identifies financial barriers as the overarching issue plaguing the diffusion of technologies along with sector specific observations.

The presentation was followed by an extensive discussion with participating stakeholders. The comprehensive nature of the report was well received. The suggestions on measures to be taken to facilitate transfer of technology ranged from strengthening national innovation systems to the contextualisation of the imported technologies. The discussion stressed the development of an adequate innovation ecosystem to take forward the cause of clean technology development and demonstration. The stakeholders also emphasised better academic-industry interface and more private investment in R&D.

### **Agenda for Inclusive Growth under G20**

May 29, 2018

The findings of the study on '*Agenda for Inclusive Growth under G20*' being undertaken by ICRIER for the Ministry of Finance, Government of India, were presented at this seminar. The research team comprises Suresh Aggarwal, Senior Consultant, Divya Satija, Consultant, and Shuheeb Khan, Consultant, ICRIER. The session was chaired by Jamini Bhagwati, RBI Chair Professor, ICRIER, and key comments on the study findings were provided by P. K. Anand, Visiting Fellow, RIS, and Deb Kusum Das, External Consultant, ICRIER. The other notable participants included Sindhushree Khullar, former CEO NITI Aayog, Biswanath Goldar, former Professor, Institute of Economic Growth, Krishna Kumar, Visiting Fellow, RIS, Pranav Kumar (Head, International Policy and Trade, CII) and Pooja Singh, Senior Consultant, PwC.

In his opening remarks, Professor Bhagwati emphasised the relevance and importance of inclusive growth for India. The presentation by Professor Suresh Aggarwal elaborated on the objectives and methodology of the study followed by the key findings and the way forward. The study identifies specific policies that have a positive impact on both growth and inequality and can be the focus of collective policy action by G20 countries. While analysing the effectiveness of different fiscal policy instruments and prioritising public expenditures to achieve the desired outcomes, it identifies a host of policy and outcome indicators that have been used to measure the status and pattern of G20 members on these indicators. The G20 countries have been ranked based on a comparative analysis of these indicators. The outcome of the study is to identify common issues related to inclusive growth among G20 countries and countries with whom India's co-operation can gain traction.

A key finding of the study is that while India is at the bottom of the inclusiveness index currently, a five-year trend analysis pushed it to the fifth position. The study identifies a list of G20 countries with which there is high potential for India to co-operate on different issues and recommends that there is a need to develop an inclusive growth index exclusively for the G20 countries. An important recommendation of the study is that the government must focus on

fiscal policy (expenditure side and transfer schemes) as a core tool for inclusive growth. In the subsequent discussion, participants identified basic personal physical security and carbon foot print as possible indicators that can be included in the index and suggested that a trend analysis of the indicators to show how developing countries like India are performing and catching up over a period of time would be useful.

### **Women Empowerment through Digitised Means of Financial Inclusion**

May 22, 2018

In G20 countries, only 40 per cent women have access to a bank account, and while they own one-third of the total small and medium-sized enterprises, they receive only 10 per cent of the loans granted by banks. India stands out as a country that, despite having taken several policy steps to enable gender equity, has been ineffective in improving outcomes in terms of female labour force participation rate and access to credit and banking facilities. The objective of the stakeholder consultation was to present the preliminary findings of ICRIER's study titled "*Women Empowerment through Digitised means of Financial Inclusion*" for India's G20 Agenda under the Argentinean Presidency, gather insights from participants on the issues involved, understand the gaps in the study and the course for further research.

The discussants unequivocally acknowledged that the gap in attainment of educational qualifications is often the basis for inequity in other economic outcomes. The gap in ownership of mobile phones and access to the Internet are also worrying, given the enormous focus on digital solutions that are being designed to address exclusion in the future. The importance of basic as well as financial and digital literacy for women and closing the gap between ownership and access was stressed. Participants also highlighted the numerous success stories from India such as the self-help group movement with nearly a 100 million self-help groups and microfinance.

One of the questions posed to the discussants was the need for innovations in savings and investment products. The importance of a shift away from the credit innovation model owing to the lack of women specific financial instruments was emphasised. Additionally, both demand and supply side factors that contribute to the gender gap in financial inclusion were examined and policy actions that leverage digital technology to create ownership and access opportunities for women in India were recommended.

Some of the notable participants in the consultation were, Saibal Paul, Associate Director of Sa-Dhan, Priyanka Paul, General Manager, Paytm Payments Bank, Rashi Sabherwal, Research Manager, Evidence for Policy Design (EPoD), Annapurna Neti, Professor at Azim Premji University, Elizabeth Bennett, Senior Manager, IDinsight, Amitabh Sinha, Vice President of Strategy and Corporate Affairs, SODEXO and Stephane Michelin, CEO of Benefits and Rewards India, SODEXO.

### **Solid Waste Management in India: An Assessment of Resource Recovery and Environmental Impact**

March 14, 2018

The study on '*Solid Waste Management in India: An Assessment of Resource Recovery and Environmental Impact*' by Isher Judge Ahluwalia, Chairperson, ICRIER, and Utkarsh Patel, Research Assistant, ICRIER, was presented at this seminar chaired by Almitra Patel, Member, Supreme Court Committee for Solid Waste Management (SWM). In her presentation, Dr. Ahluwalia explained the current practice of solid waste management in Indian cities and noted that these are both environmentally and financially unsustainable. She further presented an assessment of the rapidly rising volume of waste, its changing composition, the continuing practice of mixing wet waste with dry waste at the source of generation, and the growing volume of plastic in the waste. Along with highlighting the urgent need for mitigation choices to respond to the growing challenge, Dr. Ahluwalia also discussed some mechanisms for ensuring the financial



**Almitra Patel and Isher Judge Ahluwalia at the discussion on  
*Solid Waste Management in India: An Assessment of Resource Recovery and Environmental Impact***

sustainability of the system that have been suggested in the study. Ms. Patel presented an overview of the existing material recovery facilities and waste-to-energy plants in India, and the sources of greenhouse gas emissions from this sector and its impact.

In the subsequent discussion, the participants concurred with the contention that resource recovery from the waste, and safe disposal of the residual waste in scientifically designed landfills are grossly neglected in the present system, with sites allocated for landfills primarily being used as open-dumping sites. In his remarks, Naveen Agrawal, Director, *Swachh Bharat Mission*, Ministry of Housing and Urban Affairs, Government of India, shared information on the government's ongoing efforts towards tackling the problem of municipal waste. The issue of the excessive use of plastics for packaging, and the soaring challenge of electronic waste was highlighted by Suneel Pandey, Director, Environment & Waste Management Division, TERI. Ms. Patel drew the participant's attention to water hyacinth, an 'orphaned' waste, as a result of eutrophication of water bodies in cities due to phosphorus-containing detergent discharge. Sanchita Jindal, former Additional Director, Ministry of Environment, Forests and Climate Change, spoke on the improvements in the new Solid Waste Management Rules 2016, laying particular emphasis on the Bio-medical Waste Management Rules, 2016. The comments from the discussion have been incorporated by the authors in the final paper that emerged out of the study.

## **Principle and Practice in International Relations**

March 9, 2018

This panel discussion, supported by Tata Trusts, focused on the theme of principle and practice in International Relations. The discussion was chaired by Krishnan Srinivasan, former Foreign Secretary of India, and the panelists included Fredrik Erixon, Founder-Director, European Centre for International Political Economy (ECIPE), Belgium, Tadashi Anno, Associate Professor, Sophia University, Japan, and Ravi Velloor, Associate Editor, *The Straits Times*, Singapore.

Using several historical events as examples, Mr. Srinivasan noted that principles in the foreign policies of countries are deep-seated values – usually inherited through long cultural, societal and religious traditions or occasionally through landmark historical events unique to specific nations. Fredrik Erixon spoke on the balance between economic pursuit and idealism in the present scenario in Europe, especially since the financial crisis in 2007-08. He also referred to the recent migration crisis and its impact on politics, and pointed out that BREXIT was an attempt at redefining national identity by the United Kingdom. Tadashi Anno explained the concept of collective self-defence and the importance



L to R: Ravi Velloor, Fredrik Erixon, Krishnan Srinivasan and Tadashi Anno at the discussion on *Principle and Practice in International Relations*

of Article 9 in the Japanese constitution. He mapped the historical evolution of Japan's security policy and noted that Japan is moving in the direction of playing a more active role in global security issues, but within the framework of collective security such as the United Nations. Ravi Velloor discussed the importance of principles in Singapore's foreign policy formulation. According to him, while in terms of strategic outlook and orientation, Singapore is very close to the United States, the ASEAN grouping with its emphasis on consensus is a key factor in the practice of foreign policy.

### Helping the IMF Adapt to New Realities: The Role of Independent Evaluation

February 23, 2018



L to R: Prakash Loungani, Charles Collins, Montek Singh Ahluwalia, N.K. Singh, Shaktikanta Das and Nitin Desai at the seminar on *Helping the IMF Adapt to New Realities*

At the seminar titled *Helping the IMF Adapt to New Realities: The Role of Independent Evaluation* Charles Collins, Director, Independent Evaluation Office, IMF, made the lead presentation. The key discussants were Montek Singh Ahluwalia, former Deputy Chairman, Planning Commission, Government of India, Prakash Loungani, Advisor, Research Department, IMF, and Shaktikanta Das, former Economic Affairs Secretary, Government of India. The session was chaired by N.K. Singh, Chairman, 15<sup>th</sup> Finance Commission, Government of India.

The seminar started with Prakash Loungani briefing the audience about the series of new economic challenges that the IMF currently faces. These range from recurrent crises to new trends like the rising importance of emerging markets, new technologies, and now secular stagnation and exclusion. There has been a trend of declining productivity, aging populations, falling interest rates, rising inequality and stagnant median incomes in the past few years. As the IMF has sought to adjust to these new realities, independent evaluation has come to play a crucial role. Charles Collyns discussed the part played by the independent evaluation office, which conducts independent and objective evaluations of fund policies, activities and products. He stated that independent evaluation has reinforced surveillance, accountability, and the learning culture within the fund, and strengthened the funds' external credibility through transparency. For example, a recent evaluation of the IMF work on social protection has revealed that programme measures for vulnerable groups had mixed results. Montek Singh Ahluwalia stressed the need for giving a push to independent evaluation in India. Shaktikanta Das recommended that the IMF should 'nudge' the G-20 nations to take policy actions on difficult issues such as the rise of crypto currencies.

### **Quadrilateral: Assessing New Security Frameworks**

February 7, 2018

As part of the East Asia Research Programme, ICRIER, in collaboration with the Japan Foundation, organised the 3<sup>rd</sup> Young Scholars' Forum Panel Discussion on '*Quadrilateral: Assessing New Security Frameworks*'.

The discussion was chaired by Srabani Roy Choudhury, Associate Professor, Centre for East Asian Studies, JNU. She pointed out that the Quad framework is a nascent country-coalition in the Indo-Pacific region. In her analysis of Australia's engagement, Asha Sundaramurthy from the Vivekananda International Foundation noted that Australia has a multi-pronged strategy. She pointed out that Australia is trying to craft a nuanced strategy to maintain its responsibilities as an ally to the US but is also careful not to alienate or excessively provoke China due to the economic interdependence between the two countries. Subsequently, she went on to map the challenges and opportunities in crafting such a nuanced foreign policy. In his presentation, Gazi Hassan from the MMAJ Academy of International Studies, Jamia Millia Islamia, stressed the growing concern in China on the evolution of the Quadrilateral framework involving the US, Japan, Australia and India. The presentation by Tunia Nabam from the Centre for East Asian Studies, JNU, contextualised the growing closeness between India and Japan within the changing power dynamic in the Indo-Pacific region.

### **Green Growth and Right to Energy in India**

February 6, 2018

At the seminar on 'Green Growth and Right to Energy in India', Rohit Azad, Assistant Professor, Jawaharlal Nehru University, addressed the challenges of sustainable growth in the context of developing countries like India. After discussing the impact of climate change on India and other developing countries, he outlined the policy recommendations of his study titled '*Energy Policy with Equity*', which includes a shift to greener sources of energy along with universal access to energy. He proposed a carbon tax / cap and spending programme as a demand side intervention to control emissions. While discussing progressive taxation as an equity promoting intervention, he emphasised how in-kind transfers are preferable to cash transfers in the Indian setting. The methodology he has used for his analysis draws upon the 2015 work done by Pollin and Chakraborty about investments in clean renewables and energy efficiency. Mr. Azad concluded by presenting the results, including the projected reduction in carbon emissions if the proposed policy recommendations are implemented. The lead discussant of the paper, Amrita Goldar, Fellow, ICRIER, highlighted certain limitations of the proposals that had been made. One of the limitations she discussed was that the carbon tax / cap and spending programme proposed in the study relies on high transaction efficiency, which does not exist in India.

## Online Freelancing: Challenges, Opportunities and Impact in India

December 27, 2017



L to R: Rajat Kathuria, K. P. Krishnan and Helani Galpaya at the seminar on *Online Freelancing: Challenges, Opportunities and Impact in India*

At this event organised jointly by ICRIER and LIRNEasia, the research findings of the study on '*Online Freelancing: Challenges, Opportunities and Impact in India*' were released. The context for the study was the rise of bots and artificial intelligence (AI) that has brought new job opportunities for established industries. The study notes that technology has created jobs, especially in knowledge-intensive sectors such as medicine, education, and other professional services. However, it would be erroneous to assume that technology related jobs are only for the skilled or for the formally employed. The study emphasises that technology is also creating jobs for less educated workers, and is an opportunity for India's informal workforce and has accordingly explored the market for online freelancing and its role as a bellwether for the future of work in India.

Delivering the keynote address, K.P. Krishnan, Secretary, Ministry of Skill Development and Entrepreneurship, Government of India, identified drivers of the rapidly changing work environment in India and across the world. He spoke about the need to challenge conventional ideas of how and where work is done, alluding to the transformation of work-life balance into work-life integration. He also pointed out that many of the policy challenges for India are not identical to those for the rest of the world, especially the developed countries. According to him, since bots are increasingly taking over a wide range of low-skill repetitive tasks, skill development programmes in India should focus beyond computer literacy to enable individuals to sustain the growth of online freelancing and micro work.

The report findings highlight the rising scope and scale of online freelancing in India. The ecosystem now offers a wider variety of skills and work types, creating a big opportunity for the vast pool of informal labour in the country, especially women. The flexibility offered by online freelancing platforms could fit in well with the demands of an evolving society that is looking for fulfilling and independent opportunities of livelihood. The report recommends policy changes that can help enforce the idea of a mixed labour work force that picks between full time and contractual work based on personal preferences. The risk of technology-driven job destruction could be converted into an opportunity through online freelancing and micro work, through which at least some percentage of the millions of new and young entrants to the labour force could find livelihood opportunities.

## Role of Agriculture Extension in India

December 8, 2017



L to R: Ashok Gulati, Rajat Kathuria, Narendra Bhooshan and A. K. Singh at the discussion on *Role of Agriculture Extension in India*

A roundtable on the ‘*Role of Agriculture Extension in India*’ was organised on December 8, 2017, in New Delhi. The discussion took a cue from relevant literature that identifies public spending on agriculture as one of the most important government instruments for promoting growth and alleviating poverty in rural areas. Further, among various types of government spending, agricultural research and education (R&E) is understood to be one of the most critical factors in improving farm yields.

The discussion was chaired by Narendra Bhooshan, former Joint Secretary, Agriculture Extension, Department of Agriculture, Co-operation and Farmers’ Welfare, Government of India; A. K. Singh, Deputy Director General (Agriculture Extension), Indian Council for Agricultural Research (ICAR) was the co-chair. The session started with a presentation on ICRIER’s study, which has explored the agricultural R&E and extension system in India from a macroeconomic perspective with a special focus on six states - Uttar Pradesh, Bihar, Odisha, Madhya Pradesh, Gujarat and Punjab. The study, apart from analysing secondary data, has also used the outcomes and results from field visits to provide a more comprehensive and real scenario.

The key discussants – Sunil Kumar Singh (IAS), Agriculture Production Commissioner, Government of Bihar, Pratap Singh BIRTHAL, National Professor, ICAR, Saravanan Raj, Director, Agriculture Extension, National Institute of Agricultural Extension Management (MANAGE) and Neerja Suneja, Director (Administration), Directorate of Extension, Dept of Agriculture – raised questions regarding building capacities to make sure the transfer of technology to the bottom of the pyramid is equitable and efficient to enable the reaping of benefits of modern day innovations and highlighted the constraints and challenges that impair both the effectiveness of government investment in technology and access to markets to deliver value to small and marginal Indian farmers. The policy recommendations inferred from the deliberations were summed up by T. Nandakumar, former Chairman, National Dairy Development Board (NDDB) and Senior Fellow, ICRIER, and Ashok Gulati, Infosys Chair Professor for Agriculture, ICRIER. These included the importance of i) strengthening links between research and extension by increasing cross sharing of experiences between the public, private and civil society sectors (ii) diversifying the agricultural R&E and extension portfolio, away from

crops towards animal husbandry and dairy (iii) improving the definition and capacity of extension service providers and their quality certification through an autonomous organisation with sufficient legal powers; and (iv) designing and implementing innovation networks through digital platforms to permit two-way flow of ideas and technologies.

### Data Protection and Privacy

October 30, 2017

The rapid growth in technology and digitisation has not only increased our dependence on data but also increased considerably the ability to produce data. Debates around data protection and privacy have grown in both volume and complexity following the right to privacy judgment and the various responses of stakeholders. With the legal framework on data protection being imminent in the form of the privacy judgment, ICRIER organised a roundtable discussion on '*Data Protection and Privacy in India*' that was attended by participants from industry and academia.

The notable issues discussed included the crucial concept of consent, its relation to digital literacy and the effectiveness of consent in providing control to the user. Participants highlighted the point that while consent is foundational, it may result in 'consent fatigue'. It was observed that the concept needs to be re-examined in the context of the proliferation of data collection through innumerable avenues and the lack of digital literacy. The suggested solutions included providing greater control of data to the individual, and turning to some of the measures in the EU's General Data Protection Regulation (GDPR) that are ethical and sustainable. The discussion further delved into the control of data, and looked closely at the different types of data, and the rules that govern the flows of data. Participants also discussed the nature of regulation and regulatory capacity and additionally, identified some areas for further research.

### Agricultural Policies in India

October 11, 2017

As part of the study on '*Agricultural Policies in India*' being undertaken by ICRIER and OECD, a roundtable discussion was organised on October 11, 2017. There were three sessions – The Agricultural Policy Context in India; Improving Agriculture's Contribution to Food Security in India; and Trends and Evaluation of Agricultural Policy (and Level of Support) in India.

The session on '*The Agricultural Policy Context in India*' was chaired by Shobhana K. Pattanayak, Secretary, Department of Agriculture, Co-operation and Farmers' Welfare, Government of India. The discussants were Devendra Chaudhary, Secretary, Department of Animal Husbandry, Dairy and Fisheries, Government of India, and Pravesh Sharma, Senior Fellow, ICRIER. This session set the policy context by describing the economic and policy environment in which the agricultural sector in India operates with a discussion on key issues that have shaped the development of the sector and that have conditioned policy responses over the last two decades. Mr. Pattanayak emphasised the role of the green revolution as well as the white revolution in significantly contributing towards increasing agricultural productivity in India.

The session on '*Improving Agriculture's Contribution to Food Security in India*' was chaired by Sudhir Kumar, former Secretary, Department of Food and Public Distribution, Government of India. The discussants were Pramod Kumar Tiwari, Joint Secretary (PD), Department of Food and Public Distribution, Government of India, and Siraj Hussain, former Secretary, Department of Agriculture, Co-operation and Farmers' Welfare, Government of India, and Senior Fellow, ICRIER. The discussion focussed on the food security programme in India, and its impact on agricultural production, markets and food security.

The final session was on '*Trends and Evaluation of Agricultural Policy (and Level of Support) in India*'. The discussant of this session was Hanish Yadav, OSD to the Minister of Commerce & Industry, Department of Commerce, Government of India. The session was chaired by Santosh Kumar Sarangi, Joint Secretary, Department of Commerce, Government of India. The focus of discussion in this session was the various policy indicators including the producer support estimate (PSE) and the consumer support estimate (CSE). The PSE and CSE have been developed according to OECD's well-established methodology and are comparable to the indicators produced annually by the OECD for a large number of countries.

## India, Japan and Africa

October 11, 2017

As part of the East Asia Research Programme, ICRIER, in collaboration with the Japan Foundation organised the 2<sup>nd</sup> Young Scholars' Forum Panel Discussion on '*India, Japan and Africa*'. The discussion was chaired by Rajiv Bhatia, Distinguished Fellow, Gateway House, Mumbai, and former Indian Ambassador / High Commissioner to Kenya, Myanmar, Mexico and South Africa.

In his remarks, Ambassador Bhatia briefly described the current geopolitical scenario in the Indo-Pacific region and stressed the need to leverage Japan's financial power and India's locational advantages to operationalise the proposed Asia-Africa Growth Corridor (AAGC). Priya Saxena from the Department of African Studies, University of Delhi, in her presentation on '*Japan's Engagement with Africa: Past, Present and Future*', noted that in contemporary times, Japan has invigorated its relations with economically emerging and resource rich Africa and highlighted the impact of the growing Chinese presence in Africa on Japan's foreign policy towards the resource-rich continent. Sankalp Gurjar, from the Department of International Relations, South Asian University, spoke about India's engagement with the Indian Ocean African states. He noted that India's economic relations and security partnerships with these countries have been steadily growing. The relationship has moved beyond the earlier anti-colonial, anti-racial solidarity, and has now acquired a more multi-dimensional content. Chandrali Sarkar from the Centre for East Asian Studies, School of International Studies, JNU, provided an evaluation of several perspectives – from China, India, Japan and Africa – to understand the implications of the AAGC. She wondered whether the AAGC is a deliberate move towards counterbalancing China's BRI or a project that may work along with the BRI in the African continent. Herbert Dakasi Stackhouse, from the University of Delhi, spoke on the challenges and opportunities in the trade and investment relationship between African countries and India. Mr. Dakasi called for conceptualisation of long-term plans to strengthen economic relations between India and African countries instead of merely focusing on immediate trade outcomes.





# LECTURES & TALKS

## Indian Darwinomics and Gross Domestic Knowledge Product (GDKP) India

December 12, 2017

In a talk on *Indian Darwinomics and Gross Domestic Knowledge Product (GDKP) India* on December 12, 2017, Professor Umberto Sulpasso, Senior Fellow, Center of Digital Future, University of Southern California, Los Angeles, USA, focused on GDKP and its significance to India. The session was chaired by Jaimini Bhagwati, RBI Chair Professor at ICRIER. The GDKP concept identifies four components of a knowledge-based economy – R&D and technology, computer infrastructure, information infrastructure and education and training. It involves identification of both modern and local culture knowledge items in distinct categories, a country's knowledge producing matrix (CKPM) that compares knowledge produced by government, private institutions, and households as a differentiated way to affect GDP, a country's knowledge user matrix (CKUM) which is the value of knowledge bought by individuals and private companies as a way to measure their modernisation efforts, and the cost of learning that can be used as a political reference for government budgeting decisions through education family bonds, education credit card, etc., to support young citizens. According to Professor Sulpasso, the use of GDKP in India can facilitate the creation of a National Knowledge Education Platform and enhance GDP as well as the role of private investment with direct benefits to the Indian economy in sectors such as software, publishing etc.

## BP Statistical Review of World Energy, 2017

August 17, 2017

In a talk on *BP Statistical Review of World Energy 2017*, Kaushik Deb, Head of Gas Analysis, BP Group Economics Team, spoke on the major trends and patterns of global energy consumption and generation in 2016. He stressed that 2016 was a year of both short-run adjustments and long-run transition, primarily since the global market, while responding to the ongoing long-term transition, also had to respond to many short-run factors. The growth in energy consumption continued to remain low at 1 per cent in 2016 and the weak growth in energy demand along with a shift in the fuel mix away from coal resulted in slower growth of carbon emissions. Although the share of renewable energy within total energy consumption remained small, it accounted for almost a third of the increase in primary energy consumption last year. In the case of oil, there was a growth in demand as the market adjusted to excess supplies. The imbalance has emerged mainly due to changes in the production of US tight / shale oil in previous years, which has led to a rise in inventories. With OPEC responding to this demand supply imbalance, there was price stabilisation and market balance in 2016.

Dr. Deb also highlighted developments in the Chinese energy market. China remains the main driver of the world's energy demand. There have also been changes in its energy mix. For example, China is restricting its coal production and consumption. In 2016, Chinese coal production fell by 7.9 per cent, which is by far the largest decline on record, while the overall consumption decline was about 1.6 per cent. These events greatly affected the global coal market, which has also been adjusting to a long-run movement away from coal in major industrial countries. Similarly, China is also leading global renewable energy growth and was even able to counter its carbon emissions growth. The discussions that followed deliberated on the lessons to be learned from current trends and the geopolitics of the energy market.

## Global Food Security, Agricultural Trade and Domestic Support Policies

July 28, 2017

In a talk on '*Global Food Security, Agricultural Trade and Domestic Support Policies*', Badri Narayanan, Economist, School of Environmental and Forestry Sciences, University of Washington, presented the findings of his joint macro-level study with the Food and Agriculture Organization (FAO) that evaluated various policy options in developing countries in general to boost food security as well as agricultural production.

According to Dr. Narayanan, the food price crises in the late 2000s has generated important discussions on the interconnection between trade policies (that include tariffs, non-tariff barriers and domestic support), farm income security and food security across the globe. A reduction in the agricultural / food sector (AFS) import tariffs and other non-tariff barriers (NTBs) are likely to reduce food prices and hence, enhance food security at low or no cost to governments. However, in developing countries, regardless of food security challenges, there is a dearth of 'trust' on AFS imports, primarily as a consequence of the concerns over income security of farmers. As most of the AFS exports from developed countries are highly subsidised domestically (through production support), 'under-priced' imports flood the markets in developing countries, displacing domestic farm output and affecting the income security of farmers. Although attempts have been made to remove or reduce these non-Green Box subsidies, the lack of 'trust' makes governments in developing countries reluctant to adopt AFS imports even after tariff and NTB cuts.

Dr. Narayanan explained this nexus between trade policies and food security using the GTAP (Global Trade Analysis Project) model employed in his study. The model was augmented to include a food security index and its relationship with prices using econometric analysis. The study concluded that reduced tariffs and NTBs have the most prominent positive effects on food security and economies as a whole.

### **South Asia's Hotspots: How Climate Change will affect Living Standards**

July 14, 2017

In a talk on '*South Asia's Hotspots: How Climate Change will affect Living Standards*', Muthukumara Mani, Lead Economist, South Asia Region, World Bank, pointed out that usually, studies on climate change investigate the effects of extreme events such as flooding and drought. However, according to Dr Mani, it is important to remember that average / moderate changes matter too. Unlike extreme events, slow-moving phenomena like gradual temperature rise or changes in average precipitation over time affect the wellbeing of a region and its people. Using historic and projected climate and household survey data, the study by Dr. Mani investigates the historic spatial patterns of climate change across South Asia at the district level, the effect of changes in long-term average climate on living standards at the household level, and the location of future hotspots. The household level analysis analyses the effects of long-term changes in average temperature and precipitation on household consumption using cross-section and time series analysis. The country hotspot analysis projects the location of future hotspots in South Asia.

Dr. Mani stated that projected future temperature and precipitation changes could pose a significant challenge for some geographic areas and populations in South Asia, which could impede the growth in living standards that has taken place over the past few decades. He also stressed the need for targeted policies to improve the resilience of the people, especially the poor and vulnerable, to future climatic changes.





# WORKSHOPS

## Deconstructing Development Assistance: India and Nepal

May 29, 2018



The key findings of the project on ‘*Deconstructing Development Assistance: India and Nepal*’ were disseminated at a workshop organised by ICRIER in Kathmandu, Nepal. The inaugural address was delivered by H.E. Manjeev Singh Puri, Ambassador of India to Nepal. Ambassador Puri spoke about the development partnership between India and Nepal and elaborated on the work being undertaken by the Indian Embassy for the development of social sectors and connectivity infrastructure in Nepal. In his report on connectivity projects, Sanjay Pulipaka, Senior Consultant, ICRIER, discussed the trajectory of different infrastructure projects (including rail, road, and airport) funded by India in Nepal. The report by Tanu M. Goyal on India’s development assistance to Nepal in the education sector highlighted the fact that India’s development assistance has significantly improved access to primary and secondary education institutions, especially in Nepal’s remote areas. As regards higher education, it was pointed out that assistance from India in terms of scholarship programmes, exchange programmes and technical training programmes has helped in greatly enhancing the quality of education. The report recommended some changes in the design of the scheme and suggested that the Embassy of India should improve its outreach to promote the work being done in Nepal. The presentations were followed by a stimulating discussion among the participants, including representatives from the Government of Nepal, universities, academics, experts and students.

## Inclusion of Totalisation / Portability of Social Security Benefits in the G20 Agenda

May 24, 2018

The workshop discussions focused on the findings and recommendations of the study on the theme ‘*Inclusion of Totalisation / Portability of Social Security Benefits in the G20 Agenda*’ undertaken by Anwarul Hoda, Professor, ICRIER and Durgesh Rai, Research Associate, ICRIER. In his opening remarks, Professor Hoda elaborated on the context of the study; this was followed by a presentation by Durgesh Rai on the major findings and the recommendations of the study. The major issue discussed in the study was regarding the qualification criteria laid down by different countries governing the eligibility of migrant workers to social security benefits in that country. Since all countries stipulate that there should be a minimum qualifying period of work, the temporary nature of most migrant workers’ stay in another country makes it impossible for these workers to qualify for the benefits. In this context, this study attempts to draw the attention of the G20 to this problem of asymmetry. It suggests that the G20 countries should enter into bilateral totalisation agreements and provide proportional social security benefits for foreign workers.

The lead discussant at the workshop, Rupa Chanda, Professor of Economics, IIM, pointed out that it is important to quantify in some way the magnitude of welfare gains for member countries to make them aware of the benefits. She suggested that member countries could be motivated by getting a large number of stakeholders on board for lobbying and advocacy, among other activities. She also suggested that it would be useful to highlight the provisions that are best practices. Professor Hoda pointed out that one of the arguments in favour of entering into a bilateral totalisation agreement is the fact that the grant of social security benefits will incentivise migrant workers to return to the source country. This will lead to a process of 'circular migration'. Ranjeet Goswami from TCS suggested that the study should create a distinction between high / low / medium skilled workers. He also flagged the issue of data availability and lack of research on such experiences in the past. The workshop concluded with Professor Hoda pointing out that the issue is as much political as it is economic and, therefore, generalised economic arguments however valid, cut little ice when it comes to convincing governments. He maintained that while bilateral agreements are drawn up between sets of countries, in groupings like the G20, it is not always multilateral action, but multilaterally co-ordinated action that is beneficial.

### The Web of Transport Corridors in South Asia

March 27, 2018



L to R: Sabyasachi Mitra, Duncan Overfield, Yoshiomi Yoshino and Martin Rama at the workshop on *The Web of Transport Corridors in South Asia*

Developing large transport infrastructure projects – transport corridors – is increasingly seen as a way to stimulate regional integration and economic growth. Countries, often with the help of the international community, invest in these corridors in the hope of creating large economic surpluses that can spread throughout the economy and society. But if the corridors do not generate the expected surpluses, they can become wasteful white elephants – transport infrastructure without much traffic. A recent report *'The Web of Transport Corridors in South Asia'*, prepared and co-published by The World Bank, ADB, JICA, and DFID, was the discussion theme of a workshop organised jointly by ICRIER and the World Bank.

The report provides a conceptual framework to think about economic corridors and to enable a holistic appraisal of programme and project proposals. The framework extends beyond the immediate effects of transport corridors – such as reducing vehicle operating costs – and focuses on the ultimate goals of having a positive impact on local economic activity, jobs, gender equality, and poverty reduction, among other desirable socioeconomic outcomes. It also emphasises negative effects such as traffic congestion, regressive redistribution, social exclusion, environmental degradation, and other risks or unintended consequences.

At the workshop, Martin Melecky, Lead Economist, World Bank Group, provided an overview of the report, focusing on the economic, social and environmental impacts of designing transport corridors. In his keynote address, Amitabh Kant, CEO, NITI Aayog, highlighted the importance of transport corridors in driving growth in the manufacturing sector and the urbanisation process. He stressed the role of backward and forward linkages created by transport infrastructure that promote urbanisation. Lastly, he discussed the role of transport corridors in raising land values of nearby regions and how the incremental economic gains ought to be reinvested in developing further capacity and infrastructure. This was followed by a panel discussion that was chaired by Martin Rama, Chief Economist for South Asia Region, World Bank Group; the speakers included Prabir De, Co-ordinator, ASEAN-India Centre, RIS, Srikanth Kondapalli, Professor, Chinese Studies, JNU and Ram Singh, Professor, Delhi School of Economics. The closing remarks at the workshop were delivered by Martin Rama, Chief Economist for SAR, WBG, Duncan Overfield, Head, DFID Asia Regional and Sabyasachi Mitra, Deputy Country Director, ADB-India.

### India-Japan Partnership for Economic Development in the Northeast

March 20, 2018

The workshop on *India-Japan Partnership for Economic Development in the Northeast* was the third in the series of workshops on a similar theme organised by ICRIER. The first workshop was organised on January 19-20, 2016, at Dimapur, Nagaland, and the second workshop was organised on March 29-30, 2017, at Kaziranga, Assam. The context for this workshop series is the agreement between India and Japan in recent years to co-operate in the area of infrastructure development in the north-eastern region (NER) of India. The objective of this endeavour is to regularly bring together experts and senior level representatives from relevant organisations in both countries to address the challenges in successfully implementing the bilateral partnership as well as brainstorm on the larger, long-term vision that could guide this partnership.



L to R: Isher Judge Ahluwalia, Nongthombam Biren Singh, Kenji Hiramatsu and Rajat Kathuria at the workshop on *India-Japan Partnership for Economic Development in the Northeast*

The workshop deliberations were structured around the following themes: Infrastructure Development in NER and Current Status of India-Japan Engagement; Attracting Japanese FDI to NER and Enhancing Market Linkages with ASEAN; and Generating a Long-Term Vision for India-Japan Partnership for Economic Development in NER. Shri Nongthombam Biren Singh, Hon'ble Chief Minister of Manipur, delivered the keynote address and greatly appreciated the initiative by ICRIER to regularly organise this series of workshops on India-Japan Co-operation in the Northeast. The Ambassador of Japan to India H.E. Mr. Kenji Hiramatsu and Naveen Verma, Secretary, Ministry of Development of North Eastern Region, Government of India also addressed the participants.

The notable Japanese participants at this workshop included Naoyuki Yoshino, Dean, Asian Development Bank Institute (ADBI), Tokyo; Takema Sakamoto, Chief Representative, JICA, India; Kenichiro Toyofuku, Former Co-ordinator, Japan Plus Group, Prime Minister's Office, Government of India; Yoshiki Ehara, Representative, JICA (In charge of projects in Northeast India); and Kazuharu Kono, Secretary General, Japan Chamber of Commerce and Industry in India (JCCII).

## Values, Foreign Policy and Universality

March 09-10, 2018

The objective of the workshop, organised as part of the project on '*Values and Foreign Policy*', was to reflect on the interactions between values and foreign policies of different countries. The workshop discussions centred on whether regions have dominant normative frameworks that tend to influence the external engagement of regional organisations as well as the constituent countries. The contents of a forthcoming book on the topic were also discussed in detail.



Participants at the workshop on *Values, Foreign Policy and Universality*

The notable participants included Fredrik Erixon, Founder-Director, ECIPE, Brussels; Amit Das Gupta, Senior Researcher, Military University, Munich; Bruno Macaes, former Portuguese Secretary of State for European Affairs; Hari Vasudevan, Emeritus Professor, Calcutta University; Tatiana Shaumyan, Professor, Institute of Oriental Studies, Moscow; Kingshuk Chatterjee, Associate Professor, Calcutta University; Sanjay Pulipaka, Senior Consultant, ICRIER; Chaw Chaw Sein, Professor of International Relations, Yangon University; Tadashi Anno, Associate Professor, Sophia University, Japan; Zhang Lihua, Professor, Tsinghua University, Beijing; and Ravi Velloor, Associate Editor, The Straits Times.

## Advancing the China-India Dialogue

August 30, 2017

Dr. Rajat Kathuria, Director and Chief Executive, ICRIER, inaugurated the workshop on 'Advancing the China-India Dialogue' held on August 30, 2017, in New Delhi by introducing the New Climate Economy project and India-China dialogue on economic growth and climate. He also gave a brief introduction of ICRIER's work on related issues such as renewable energy and urbanisation. Ms. Helen Mountford, Program Director for the New Climate Economy (NCE), briefly discussed the history and background of New Climate Economy. She talked about the need to merge climate action with national economic growth policies.



L to R: O.P. Agarwal, Ajay Mathur and Arunabha Ghosh at the workshop on  
*Advancing the China India Dialogue*

Opening the discussion on 'Renewable Energy and Transition from Coal', Ajay Mathur, Director General, The Energy and Resource Institute (TERI), pointed out that with economic growth, the pattern of energy demand and supply is changing in these two countries. For example, demand for air-conditioning and refrigeration is soaring. Dr. Mathur mentioned some common issues (energy storage, overcapacity of coal-generated electricity) that both countries are going to face in the near future and on which they can engage in joint research collaboration to find solutions. Arunabha Ghosh, Chief Executive Officer, Council on Energy, Environment and Water (CEEW) emphasized collaboration over energy issues in the manufacturing sector and O.P. Agarwal, Chief Executive Officer, World Resources Institute (WRI), India, identified electric vehicles as one of the most crucial areas where India and China can engage in joint studies.

In the discussion on 'green finance', Naina Lal Kidwai, Former CEO and Country Head of HSBC India, and former President of the Federation of Indian Chambers of Commerce and Industry, pointed out the high cost of climate finance in India and China and the resulting finance gap for sustainable infrastructure. Sharmila Chavaly, Joint Secretary, Infrastructure & Energy Division, Department of Economic Affairs, Ministry of Finance, Government of India, said that policy will drive energy demand in India. She talked about the government initiative of / on green tagging projects and project bonds. The availability of finance for the climate initiative in India was stressed by Charith Konda, Fellow, Climate Policy Initiative (CPI). Some probable areas of collaboration between India and China identified in this session were electric vehicles, capital market strategy, green and municipal bonds.

In the last session of the workshop on 'Impact of Climate Change on Development and South-South Co-operation' Rangan Banerjee, Head of Department of Energy Science and Engineering, Indian Institute of Technology, Bombay, spoke on how the 2015 Paris agreement and 2015-2030 Agreement for Sustainable Development are critical for the Global South. He suggested that China and India should focus on sharing of experiences and lessons, capacity building and support for technology assessment and transfer. Such collaboration will maintain / enhance national research competitiveness / sustainability and Improve the competitiveness of the economy. Rajat Kathuria, Director & CE, ICRIER, talked about the nexus of water, energy and food in India and China and the environmental, social, and economic costs related to this nexus.



# **SPECIAL DIALOGUES**

## Conversations on Urbanisation

Cities are integral to India's rapid growth, particularly in its current stage of development. To discuss and identify the key challenges and opportunities for Indian cities and towns as they prepare to deliver a better quality of life and act as engines of growth, ICRIER, in February 2014, jointly with India Habitat Centre (IHC), launched a series of interactive discussions between the IHC membership and eminent experts, titled, 'Conversations on Urbanisation', mostly moderated by Isher Judge Ahluwalia, Chairperson, ICRIER. These are listed below. The following four conversations were organised this year.



Speakers at the various *Conversations on Urbanisation*

### *Talking about Frothing Yamuna and Bellandur Lake*

March 13, 2018

The 23<sup>rd</sup> conversation on "Talking about Frothing Yamuna and Bellandur Lake" was led by Almitra Patel, member, Supreme Court committee on solid waste management, whose landmark 1996 public interest litigation in the Supreme Court against the open dumping of municipal solid waste was instrumental in the drafting of the first Municipal Solid Waste Management Rules in 2000. Dr. Isher Judge Ahluwalia, Chairperson, ICRIER, moderated the discussion.

Linking the excess phosphate in household and factory-use detergent powders and bars to the layer of white foam visible on the Yamuna river and the Bellandur Lake in Bangalore, the noted biologist and chemist pointed out that this was due to the fact that in the absence of enough sewage treatment plants (STPs), all our laundry waste water drains into our nearest rivers and ponds. Ms. Patel explained that eutrophication in urban water bodies due to untreated wastewater or sewage flowing into local water bodies feeds the growth of water-weeds. These weeds blanket the water surface. After dying, these weeds sink to the bottom of the water and decay. Microbes that feed on this rotting organic matter consume all the oxygen in the water disturbing the ecology for survival of other aquatic life. Further, when the organic matter naturally breaks down, it releases fatty acids that float to the surface. These act as natural surfactants, which allow minute bubbles to form which often persist for a long time. This is how foam is formed and turns into froth.

According to her, the problem arises since India has no mandatory rules limiting phosphorus content in detergents and laundry bars. The content in India is higher than the global norm of 2.2 per cent. Bringing this content closer to the global norm and mandatory phosphorous content labelling of detergents in India is the best way to solve this problem according to Ms. Patel.

### *Water: Rethinking Service Delivery in India*

January 29, 2018

The 22<sup>nd</sup> conversation on was “Water: Rethinking Service Delivery in India” was led by Junaid Kamal Ahmad, Country Director for the World Bank in India. Dr. Ahmad is well known for his focus on water and the economy, and has emphasised institutions and resilience in water management. He has also worked in the areas of urban finance and city management, service delivery in federal systems, and local government reform.

In his remarks, Dr. Ahmad pointed out that management of natural resources, especially water, is very poor in India and must be addressed. He noted that one of the main reasons for failure of service delivery systems in India is poor financing. In his opinion, the operation and maintenance cost, if not the capital cost, of service delivery infrastructure must be financed through user charges. In India’s case, municipal budgets are the primary source of funds, which makes service delivery a political issue. Populism incentivises the city’s statesmen to charge the minimum for these services, which makes it difficult for the service providers to meet even their O&M cost, let alone capital investment. He cited the example of Israel where water is considered a scarce public good, and therefore, is priced high to avoid misuse. He also mentioned studies which suggest that benefits of 24x7 water supply includes not only better health outcomes, but also lower breakdowns and maintenance costs.

### *Urban Travel in India: Problems, Opportunities and Challenges*

November 27, 2017

The 21<sup>st</sup> conversation on “Urban Travel in India: Problems, Opportunities and Challenges” was led by Geetam Tiwari, MoUD Chair Professor for Transport Planning, IIT Delhi. The discussion was moderated by Rajat Kathuria, Director & CE, ICRIER.

Professor Tiwari started her talk with a few statistics related to the various modes of transport used by people in Delhi to commute to work, including walking. She expressed concern over the fact that the combined share of all the public transport modes has been declining in recent years, owing to increased private vehicle ownership. This has led to rising vehicle density on the roads, traffic congestion and consequent problems from rising particulate matter pollution from vehicular emissions. She also touched upon the severity of health issues that are related with higher motorisation of transport, e.g., growing cases of obesity in children and cardiovascular diseases among adults. Dr Tiwari emphasised that a city’s infrastructure master plan must emphasise public transport over private vehicles, while also assuring inclusivity and safety for children, women, differently-abled people and senior citizens.

## Imagining Water Secure Cities

September 18, 2017

The 20<sup>th</sup> conversation on “Imagining Water Secure Cities” was led by Dr. Arunabha Ghosh, CEO, Council on Energy, Environment and Water (CEEW), New Delhi. Dr. Isher Judge Ahluwalia, Chairperson, ICRIER, moderated the discussion.

During 2001-2011, India's urban population increased by nearly 32 per cent, putting demand-side pressure on basic services such as water, sanitation and sewerage. Talking about water secure cities, Dr. Ghosh noted that even though 70 per cent of the urban households in India have access to water in their premises, ‘on-demand water’ is still a rarity. On average, urban households have access to water only for four and a half hours per day. The existing water treatment facilities are both insufficient and inefficient, and the sewerage system is in a dismal state. Only 37 per cent of the waste-water released from urban households gets treated before being released into water bodies, severely polluting our inland water bodies. Dr. Ghosh suggests the way to realise the concept of water secure cities is by adopting a city level, multi-dimensional water governance approach covering socio-political, regulatory, technological and environmental dimensions. Under the social dimensions, he recommended the adoption of the -water-for-all approach through PPPs, facilitating quality and cost-effective water services. Dr. Ghosh stated that significant scientific and technological investments need to be made to ensure data collection at each step rather than concentrating just on bulk volumes. He added that the role of the environment and environmental risks in water resource use and management must be included as an essential dimension to improve the existing state of affairs.

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## India-Japan

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ICRIER has been at the forefront of efforts to improve mutual understanding between India and Japan since 2007 and has gradually emerged as a key centre for regular dialogue among scholars, industry representatives, policy practitioners and media persons on issues relating to Japan and Indo-Japanese relations. In 2010, ICRIER entered into a memorandum of understanding with the Policy Research Institute (PRI), a think tank under the Ministry of Finance, Japan, and since then, the two institutions have been jointly organising an annual workshop to facilitate discussions among experts on subjects relating to India-Japan economic co-operation. The workshop is held alternatively in Tokyo and New Delhi.

The 8<sup>th</sup> ICRIER-PRI Workshop on the theme *Economic Reforms in India: Opportunities for Enhancing India-Japan Economic Partnership* was organised on February 22, 2018, in Tokyo. The discussions at the workshop were structured into three sessions – Macroeconomic Trends in India and Japan, GST Implementation and Growing Digital Economy in India, and India-Japan Economic Partnership: Way Forward for a ‘Win Win’ Relationship.

The ICRIER delegation was led by Isher Judge Ahluwalia, Chairperson, ICRIER, and the speakers from the Indian side included Rajat Kathuria, Director & CE, ICRIER, Atul Shunglu, Chief Representative Japan, The Federation of Indian Chambers of Commerce and Industry (FICCI), Subhabrata Mukherjee, Senior Manager, India Business Tax Desk, PricewaterhouseCoopers (PwC), Tokyo, Deepa Gopalan Wadhwa, Former Indian Ambassador to Japan, and Sanjana Joshi, Senior Consultant, ICRIER. The PRI delegation was led by Toshinori Doi, President, PRI, and notable Japanese speakers were Shuji Uchikawa, Professor, Senshu University, Masayuki Nakajima, Forex Analyst / Economist, Vice President, Global, Markets Research, Nomura Securities Co. Ltd.), Hajime Sato, Senior Research Fellow, Deputy Director, South Asian, Studies Group, Area Studies Center Institute of Developing Economies, IDE-JETRO, Takafumi Masukata, Group General Manager, Sales Strategy Division, Nippon Express, Tokuo Iwaisako, Senior Visiting Scholar, PRI and Professor, Institute of Economic Research, Hitotsubashi University), Shin Oya, Senior Advisor, Policy and Strategy Office for Financial Operations Corporate Planning Group, JBIC, and Kyosuke Inada, Senior Director and Director, South Asia Division 1, South Asia Department, JICA).

## India-China

Two of the world's biggest economies, China and India, are at critical turning points. Both countries will see an unprecedented scale and pace of change, thanks to rapid industrialisation and urbanisation. Both countries are also facing common and ongoing challenges because of congestion, severe air pollution and a high dependence on energy imports. And for both, there are opportunities to manage these rapid changes while also delivering strong economic growth. In March 2017, ICRIER, in collaboration with Tsinghua University and New Climate Economy (NCE), the flagship initiative of the Global Commission on the Economy and Climate, initiated a dialogue around shared challenges and opportunities for climate action between India and China that will boost economic growth and inclusive development. The First Dialogue was convened at Tsinghua University in Beijing on March 16-17, 2017. The Chinese and Indian delegations – headed respectively by Liu Yuanhua, Chairman of the Chinese National Expert Committee on Climate Change and Shyam Saran, Former Indian Foreign Secretary – held a productive dialogue around shared challenges and opportunities for climate action that will boost economic growth and inclusive development.



**Delegates of 2<sup>nd</sup> China-India Dialogue with Suresh Prabhu, Union Minister of Commerce and Industry, Government of India**

This year the 2<sup>nd</sup> Dialogue was organised by ICRIER in collaboration with the New Climate Economy and Tsinghua University in New Delhi on January 28-30, 2018, at New Delhi. The dialogue focused on four work streams – finance, energy, climate change and growth, and south-south co-operation. The keynote was delivered by Shri Suresh Prabhu, Union Minister of Commerce and Industry, Government of India. The Hon'ble Minister welcomed the initiative noting that it would create synergies and stressed that India and China being historical partners with strong trade ties must work together to take this partnership forward.

The Indian delegation was headed by Shyam Saran, Former Indian Foreign Secretary, while the Chinese delegation was headed by Liu Yanhua, Former Vice-Minister of the Ministry of Science and Technology. The dialogue aimed at exploring the leadership opportunities for climate action and growth. The experiences from both countries in urban development, climate resilience, and climate risks were presented by the participants. The issue of energy transition for both supply-side and demand-side was also discussed during the dialogue. India's recent success in energy efficiency with Perform, Achieve and Trade (PAT) mechanism was highlighted by Ajay Mathur, Director General of TERI. The issue of climate and green finance, its standardisation, and its integration was also discussed during the dialogue with a focus on the role of India and China in greening multilateral development banks. The dialogue ended with a roundtable discussion with representatives from different businesses and the two delegations.





# **BOOKS & REPORTS RELEASES**

## Book – *Sub-regional Co-operation between India, Bangladesh and Myanmar: Trade, Investment and Connectivity*

April 23, 2018



L to R: Deb Kusum Das, Nisha Taneja, Shankar Acharya, Jitendra Singh, Moe Kyaw Aung and Samridhi Bimal at the release of the book *Sub-regional Co-operation between India, Bangladesh and Myanmar: Trade, Investment and Connectivity*

The book *Sub-Regional Co-operation between India, Myanmar and Bangladesh: Trade, Investment and Connectivity*, edited by Nisha Taneja, Professor, ICRIER, Deb Kusum Das, External Consultant, ICRIER and Samridhi Bimal, Consultant, ICRIER, was released in April 2018 by Dr. Jitendra Singh, Hon'ble Union Minister of State (IC), Ministry of Development of the North Eastern Region. In his keynote address, the Hon'ble Minister highlighted the importance of the North Eastern Region (NER) for India and the present government's efforts under the Act East Policy. H.E. Mr. Moe Kyaw Aung, Ambassador of Myanmar to India was also present at the event.

In the context of the changing economic and political changes in Myanmar over the last two years, along with India's Act East Policy, which has provided an impetus for integrating India's north-eastern states, Bangladesh and Myanmar, the book emphasises how greater trade in the sub-region can be a vehicle of economic integration and raise the living standards of the inhabitants. It also highlights the challenges of cross-border connectivity, investments, infrastructure and logistics, and suggests the policy options for governments in the sub-region.

The book is the result of a research collaboration between scholars from leading institutions in India, Myanmar and Bangladesh, and brings together the various facets of economic integration and co-operation from the perspective of each of these countries. The initiative was funded by the Department for International Development (DFID) and implemented by the Indian Council for Research on International Economic Relations (ICRIER). The book release was followed by presentations and a panel discussion on India-Myanmar border trade and connectivity and the importance of the NER of India in it.

## Book – *Integrating South and East Asia: Economics of Regional Co-operation and Development*

October 30, 2017

The book *Integrating South and East Asia: Economics of Regional Co-operation and Development* was released by Rajat Kathuria, Director & CE, ICRIER, at an event jointly organised by ICRIER and the Asian Development Bank (ADB) in October 2017 at New Delhi. The book, edited by Jayant Menon and T.N. Srinivasan, has been published by Oxford University Press and ADB.

Explaining the context for the book, Arjun Goswami, Technical Advisor, Economic Research and Regional Co-operation Department, ADB, noted that economic ties between South and East Asia have been growing steadily since the 1990s, fuelled by domestic reforms and emergence of regional production networks. More recently, bilateral and region-level initiatives have also contributed to increasing integration. He stated that the book evaluates the economic implications of increasing co-operation between the two sub-regions, providing empirical analyses for informed policy decisions and improved outcomes. Exploring the role of market forces as well as domestic and regional policies, it examines how integration helps in spurring inclusive economic development, especially in small economies. It also discusses the prospects for India's integration with East Asia as it looks to increase its engagement with the global economy through greater links with the sub-region.



L to R: Anwarul Hoda, Rajat Kathuria, Jayant Menon, Arpita Mukherjee, Mansi Kedia and Durgesh K. Rai at the release of the book *Integrating South and East Asia: Economics of Regional Cooperation and Development*

The book release was followed by a panel discussion and the speakers were Rajat Kathuria, Director & CE, ICRIER, Anwarul Hoda, Professor, ICRIER, Harsha Vardhana Singh, Executive Director, Brookings India, and Dev Nathan, Professor, Institute for Human Development.

### White Paper – *India as an Innovation Economy - Role of IP and ICT*

June 26, 2018

At an event organised jointly by ICRIER and European Business & Technology Centre (EBTC), the White Paper on *India as an Innovation Economy - The Role of IP and ICT* was released by Hanumanthu Purushottam, Chairman & Managing Director, National Research Development Council and Tania Friedrichs, Minister Counsellor, Delegation of the EU to India and Bhutan. The White Paper is authored by Arpita Mukherjee, Professor, ICRIER and Alka Chawla, Associate Professor, Delhi University and National Expert Europe India IP Facilitation Forum, EBTC, with contributions from researchers at both ICRIER and EBTC.

The white paper focuses on the role of two key pillars of an innovation economy – Information and Communications Technology (ICT) and Intellectual Property (IP) and discusses how these can help India position itself as a leading global hub for innovation and technology development, bring in investment, and create high quality jobs. The paper provides policy oriented recommendations to fast track India's journey towards an innovation economy. The report release was followed by a panel discussion on "Strengthening India-EU Collaboration in ICT and IP". The discussion was moderated by Rajat Kathuria, Director & CE, ICRIER and speakers included Vivek Sonny Abraham, Senior

Assistant Vice President, Invest India; Christophe De Vroy, First Counsellor, Trade and Economic Affairs, Delegation of the EU to India; Gerard Owens, Co-ordinator for IP5, European Patent Office; Deepa K. Tiku, Partner, K&S Partners and Suryanil Ghosh, Chairperson, TotalStart Entrepreneurship Ecosystem Developers.



L to R: Hanumanthu Purushottam, Rajat Kathuria, Tania Friedrichs, Poul V. Jensen, Arpita Mukherjee and Alka Chawla at the release of the white paper  
*India as an Innovation Economy - The Role of IP and ICT*

## Report – *UN Economic and Social Survey of Asia and the Pacific 2018*

May 8, 2018



L to R: Rajiv Chandran, Jaimini Bhagwati, Rupa Chanda and Arpita Mukherjee at the release of the report *UN Economic and Social Survey of Asia and the Pacific 2018*

ICRIER, jointly with the Economic and Social Commission for Asia and the Pacific (ESCAP), organised the media release of the report *UN Economic and Social Survey of Asia and the Pacific 2018* in May 2018 at New Delhi. The report examines how governments of countries in the Asia-Pacific region could increase domestic public financial resources and leverage private capital to strengthen their long-term economic prospects. It includes estimates on how much additional finance countries may mobilise from such measures as reforms in tax administration or tax incentives, introduction of carbon taxes, prudent sovereign borrowing from financial markets and creation of an enabling environment for public-private partnerships.

The report was released by Jaimini Bhagwati, RBI Chair Professor, ICRIER, and Rupa Chanda, Head, ESCAP South and South-West Asia Office, New Delhi. Speaking at the event, Dr. Bhagwati discussed the importance of macro-economic stability and effective macro-prudential policies in the face of trade protectionism, rising interest rates and increasing oil prices in the global economy. He said that countries need to focus on creating an enabling environment for raising adequate finances, as well as containing fiscal and revenue deficits. He concluded by saying that widening and deepening the tax base to increase tax revenues should be a top priority for economies in the Asia Pacific region, especially India. Dr. Chanda discussed how countries could take advantage of the current global economic conditions to address challenges, enhance resilience, broad base growth and make their economies more sustainable. She also pointed out that concentrating on environmental and social policies and implementing these in the national plans and budget will help improve the region's prospects for sustainable development.

### **Report – *The Anatomy of an Internet Blackout: Measuring the Economic Impact of Internet Shutdowns in India***

April 25, 2018



**Authors and panellists at the release of the report *The Anatomy of an Internet Blackout: Measuring the Economic Impact of Internet Shutdowns in India***

The final report of the study *The Anatomy of an Internet Blackout: Measuring the Economic Impact of Internet Shutdowns in India* authored by Rajat Kathuria, Director and CE, ICRIER, Mansi Kedia, Consultant, ICRIER, Gangesh Varma, Consultant, ICRIER, Kaushambi Bagchi, Researcher, ICRIER, and Richa Sekhani, Researcher, ICRIER was released in April 2018 at New Delhi.

In his presentation on the findings of the study, Dr. Kathuria defined an Internet shutdown as “an intentional and complete disruption of fixed-line, or mobile Internet, ordered pursuant to the authority of the state, that renders Internet inaccessible or unusable for a specific population within the territory of India”. He stated that during the period 2012 to 2017, 16315 hours of Internet shutdowns cost the Indian economy US\$3.04 billion. The report supplements the quantitative estimation with qualitative analysis by identifying case studies across seven affected states that also uncovered the causes of Internet shutdowns in India. The analysis also found heterogeneous consequences across sectors of the economy. Sectors such as e-commerce and IT services were most affected while banking, education and manufacturing were marginally affected due to Internet shutdowns.

The report release was followed by a panel discussion where Sanjeev Bikchandani, Co-Founder and Executive Vice Chairman, Info Edge, Rai Mahimapat Ray, District Magistrate, Collector and Deputy Commissioner, Ranchi, Jharkhand,

Rajan Mathews, Director General, Cellular Operations Association of India, and Ramanjit Singh Chima, Policy Director, Access Now, shared their views on the extant technological, socio-economic and governance issues raised by Internet shutdowns in India. The panelists detailed the urgency of social tensions facing bureaucrats that drive decision orders for Internet shutdowns in India, highlighted cases of globally available tech-based solutions that help bureaucrats improve accountability and response to law and order situations, stressed the significance of the government's social media presence and civil society's active self-regulatory role as an alternative to Internet Shutdowns and emphasised the need for broader consultations on policies related to Internet shutdowns in India.

### Report – *The Innovation Paradox: Developing-Countries, Capabilities and the Unrealized Promise of Technological Catch-up*

April 3, 2018



L to R: Rajat Kathuria, William F. Maloney and Junaid Ahmad at the release of the report *The Innovation Paradox: Developing-Countries, Capabilities and the Unrealized Promise of Technological Catch-up*

The launch of the World Bank study report *The Innovation Paradox: Developing-Countries, Capabilities and the Unrealized Promise of Technological Catch-up* was jointly organised by ICRIER and World Bank at New Delhi in April 2018. This study contends that despite the vast potential returns to innovation, developing countries invest far less, measured along a variety of dimensions, than advanced countries. To explain this innovation paradox, the report focuses on three central determinants of innovation performance: (1) the critical complements to innovation investment needed to realise the high potential returns; (2) the range of firm capabilities required to undertake innovation and take it to market; and (3) the required government capabilities for implementing effective innovation policies. The analysis draws on two important traditions, the neoclassical and the National Innovation Systems (NIS) literature, highlighting the common ground between them, with the ultimate goal of contributing to more coherent and effective policy making in developing countries.

In his welcome address, Junaid Ahmad, World Bank, Country Director, India, focused on the nature of innovation in South Asia, noting that most of these innovations have taken place in the social and public service delivery systems. He wondered why such innovations have not taken place in the manufacturing sector. In his remarks, Rajat Kathuria, Director & CE, ICRIER, called attention to issues relating to jobs, firm size and the labour market. He also raised concerns over the distributive consequences of Indian growth and the issues of low investment in R&D, market failure in R&D, importance of export of intellectual property and the role of government in driving innovation through initiatives like the National Innovation Foundation. The co-author of the report, William F. Maloney, Chief Economist for Equitable Growth, Finance and Institutions, World Bank Group, discussed the dimensions of productivity for policy. He explained

the paradox discussed in the report where followers could borrow what already exists instead of putting efforts and taking risks to evolve technologies.

The report release was followed by a panel discussion chaired by S. K. Brahmachari, Scientist and Founder Director, CSIR-Institute of Genomics & Integrative Biology. The speakers were William F. Maloney, Chief Economist for Equitable Growth, Finance and Institutions, World Bank Group, Debjani Ghosh, President-Designate, NASSCOM, Shubhashis Gangopadhyay, Research Director, India Development Foundation (IDF), and Rajat Kathuria, Director & CE, ICRIER. The discussion primarily focused on the need for a change in the assessment criteria in school education to fuel innovation, the story of the Indian pharma industry, competitiveness and intellectual property regime, and higher education in India along with innovation in the Indian context, particularly with reference to the widespread use of *jugaad*.

### ***World Inequality Report 2018***

December 20, 2017



**L to R: Pronab Sen, Lucas Chancel, Rajat Kathuria, Himanshu and Sandeep Chachra  
at the release of the *World Inequality Report 2018***

ICRIER and the World Inequality Lab jointly organised the launch of the *World Inequality Report 2018* in December 2017 at New Delhi. The report aims to contribute to a more informed global democratic debate on economic inequality by bringing the latest and most complete data to public discussion. The report presents data to show that income inequality has increased in nearly all regions of the world in recent decades, but at a different pace. It notes that inequality levels are very different among countries, even when countries share similar levels of development, highlighting the important roles that national policies and institutions play in shaping inequality.

In her welcome address, Isher Judge Ahluwalia, Chairperson, ICRIER, put forth a perspective on the role of inequality in economic development and poverty reduction, particularly in the backdrop of the current socio-economic scenario in India. She also emphasised the reorientation of the growth debate in a global context aiming towards poverty reduction and subsequently pushing for inclusive growth. The main findings of the report were presented by Lucas Chancel, Co-Director, World Inequality Lab & World Wealth and Income Database, Paris School of Economics. He highlighted the importance of institutional changes and political choices rather than deterministic forces in explaining diverging country inequalities. Dr. Chancel concluded by suggesting that if all countries adopt a European inequality pathway, then global inequality would decrease by 2050, which would have an enormous impact on global poverty reduction. The policy options suggested for income equality reduction were progressive taxation, global financial registry, equal access to education and well-paying jobs along with investment in future.

This was followed by a panel discussion and the speakers included Rajat Kathuria, Director & CE, ICRIER, Pronab Sen, Programme Director, IGC India Programme, Sandeep Chachra, Executive Director, Action Aid, and Himanshu, Associate Professor in Economics, Jawaharlal Nehru University.

### Report – *Trouble in the Making? The Future of Manufacturing-Led Development*

December 7, 2017



L to R: Rajat Kathuria, Sebastian Saez, Ramesh Abhishek, Mary Hallward-Driemeier and Gaurav Nayyar at the release of the report *Trouble in the Making? The Future of Manufacturing-Led Development*

The World Bank and ICRIER hosted an event to disseminate the findings of the report titled *Trouble in the Making? The Future of Manufacturing-Led Development* in December 2017 at New Delhi. In the context of shifting patterns of manufacturing around the world that has several ramifications for developing countries, the report examines the changes in the feasibility and desirability of manufacturing led development in the wake of changing trends in technology and globalisation. The report authored by Mary Hallward-Driemeier and Gaurav Nayyar explains that the criteria for becoming a desirable manufacturing location are changing. Companies once influenced by the prospect of inexpensive labour costs are beginning to favour locations that can better take advantage of new technologies.

In their presentation on the report, the authors noted that the key question for lower income and developing countries like India was that if competitiveness stops being determined by lower wages, how developing countries would make the most of new opportunities in manufacturing. The ICT revolution and newer technology like robotics, the internet of things, 3D printing, etc., were highlighted as important factors for developing countries as these could potentially affect production of traditional goods. The authors argued the need to explore how trade patterns might change due to changes in technology. The key takeaways from the report were that manufacturing will continue to remain a crucial part of development strategies of countries, but with “fewer dual benefits of productivity and jobs”. Some manufacturing industries, despite technological changes, would remain feasible entry points for countries that are less industrialised, and would, therefore, drive low skill employment. There is a need for urgency rather than alarmism about loss of jobs due to advancements in technology that are taking over manufacturing. While it is important to focus on the disruptions, it is equally essential for countries to position themselves to take advantage of new opportunities.

The report release was followed by a panel discussion. The speakers were Pronab Sen, Country Director, International Growth Centre, India, Sachchidanand Shukla, Chief Economist, Mahindra and Mahindra, and Rajat Gupta, Senior partner, McKinsey and Co.

## Report – *Organic Farming in India: Status, Issues and Way Forward*

August 23, 2017



L to R: Tanu M. Goyal, Arpita Mukherjee, Amitabh Kant, Rajat Kathuria, Ashish Bahuguna and Anshu Budhreja at the release of the report *Organic Farming in India: Status, Issues and Way Forward*

Globally, there is growing awareness of the adverse impact of chemical inputs on the soil, environment and human health. This has prompted both developed and developing countries to shift towards organic farming and organic food products. The final report of the study *Organic Farming in India: Status, Issues and Way Forward* undertaken by ICRIER was released in August 2017 at New Delhi. The dignitaries present at the event included Ashish Bahuguna, Chairperson, Food Safety and Standards Authority of India, Amitabh Kant, Chief Executive Officer, NITI Aayog, Anshu Budhreja, Chief Executive Officer, Amway India, Krishan Chandra, Director, National Centre of Organic Farming, and Wojciech Dziworski, Counsellor, Trade & Economic Affairs, Delegation of European Union to India.

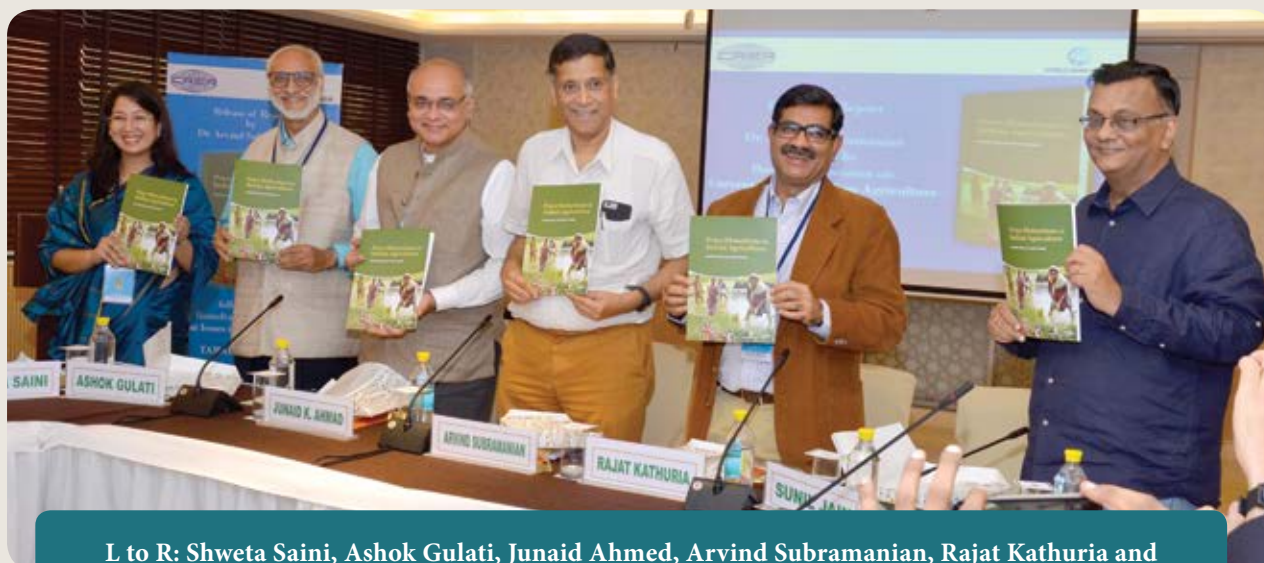
The key findings and recommendations were presented by Arpita Mukherjee, Professor, ICRIER. She highlighted the need for the creation of a single nodal agency for the organic sector, making the organic certification process mandatory for domestic market the way it is done for exports, laying out clear labelling requirements and logo for organic products, and strict punishment for fraudulent practices by unscrupulous traders. Speaking on the occasion, Mr. Kant expressed optimism on the expansion of organic farming in India, and suggested that quality standards set by the export promotion body APEDA should be followed for organic products to enable these to gain a greater share in both the domestic as well as global markets. He emphasised the need to ensure better market linkages, making available quality organic seeds and planting material, encouraging private investment in organic seed breeding, and creating a role model for organic farmers to emulate. Mr. Bahuguna highlighted the importance of organic farming as an “effective instrument” to promote the idea of sustainability and increase the wealth of farmers.

## Report – *Price Distortions in Indian Agriculture*

July 18, 2017

The ICRIER-World Bank report *Price Distortions in Indian Agriculture* authored by Shweta Saini, Senior Consultant, ICRIER, and Ashok Gulati, Infosys Chair Professor for Agriculture, ICRIER, was released in July 2017 at New Delhi in the presence of Arvind Subramanian, Chief Economic Advisor, Government of India, Rajat Kathuria, Director & CE, ICRIER, and Junaid Ahmed, World Bank, Country Director, India. The key focus of the report is on estimating the extent to which domestic prices of major Indian agriculture commodities deviate from their corresponding free trade reference prices. The free trade reference prices are the estimated export parity reference prices in cases of exported commodities

and import parity reference prices in cases of imported commodities. The deviation between domestic and free trade reference prices is termed as “distortion”, which can result from price- and trade-related policies.



L to R: Shweta Saini, Ashok Gulati, Junaid Ahmed, Arvind Subramanian, Rajat Kathuria and Sunil Jain at the release of the report *Price Distortions in Indian Agriculture*

In his opening remarks, Dr. Ahmed noted that Indian agriculture today is significantly intertwined with the issue of water. The relationship between water and agriculture is thus the first issue that needs to be dealt with in the country. In addition, agriculture must be studied in the context of the growth of small towns in the country. Formally releasing the report, Dr. Arvind Subramanian emphasised that Indian agriculture needed to go through a structural transformation with lesser people and higher productivity. In the presentation on the findings of the report, Dr. Gulati highlighted three major issues – exchange rate, overprotection of industries related to agriculture, and suppression of prices. Dr. Gulati used the example of common rice to show the government’s inclination to impose controls quickly and the display of lethargy when it comes to removing them. A key recommendation of the report is to ‘ban export bans’ and augment linkages between farms and firms.

### Report – *Getting Punjab Agriculture Back on High Growth Path: Sources, Drivers and Policy*

July 5, 2017



Authors and panellists with Manpreet Singh Badal at the release of the report *Getting Punjab Agriculture Back on High Growth Path: Sources, Drivers and Policy*

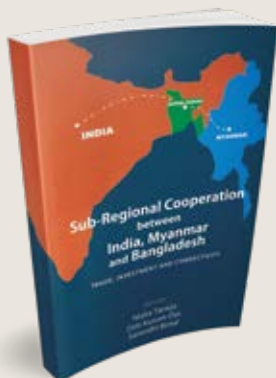
The report authored by Ashok Gulati, Infosys Chair Professor for Agriculture, ICRIER, Ranjana Roy, Research Associate, ICRIER, and Siraj Hussain, Senior Consultant, ICRIER, is part of the study on agricultural growth and its linkages to poverty alleviation in six selected states of India, namely Bihar, Uttar Pradesh Odisha, Punjab, Gujarat and Madhya Pradesh. The report was presented to Shri Manpreet Singh Badal, Hon'ble Minister for Finance and Planning, Government of Punjab, India, in July 2017. In his presentation on the key findings and recommendations, Dr. Gulati highlighted the need for 1) demand driven diversification, 2) encouragement of food processing units, and 3) sustainable agriculture with special focus on micro irrigation techniques and direct benefit transfer of subsidies to farmers' account.





# PUBLICATIONS

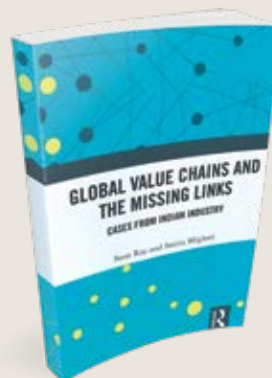
## Books



### **Sub-regional Cooperation between India, Bangladesh and Myanmar: Trade, Investment and Connectivity**

Edited by Nisha Taneja, Deb Kusum Das and Samridhi Bimal

Academic Foundation, 2018, 398 pages

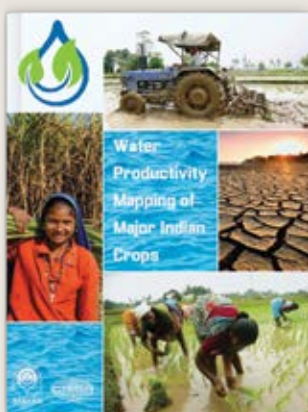


### **Global Value Chains and the Missing Links: Cases from Indian Industry**

By Saon Ray and Smita Miglani

Routledge, 2018, 268 pages

## Reports



### **Water Productivity Mapping of Major Indian Crops**

Bharat R. Sharma, Ashok Gulati, Gayathri Mohan, Stuti Manchanda, Indro Ray, and Upali Amarasinghe

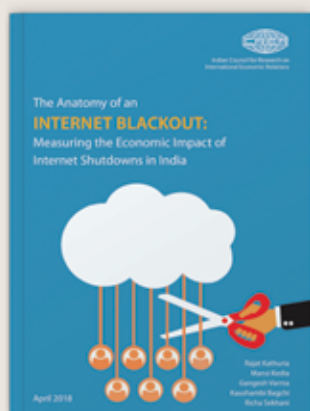
ICRIER and NABARD, June 2018, 212 pages



### **Agriculture Extension System in India: Review of Current Status, Trends and the Way Forward**

Ashok Gulati, Pravesh Sharma, Anisha Samantara and Prerna Terway

ICRIER, May 2018, 128 pages



### The Anatomy of an Internet Blackout: Measuring the Economic Impact of Internet Shutdowns in India

Rajat Kathuria, Mansi Kedia, Gangesh Varma, Kaushambi Bagchi and Richa Sekhani

ICRIER, April 2018, 68 pages



### Towards Smarter Service Provision for Smart Cities: Accounting for the Social Costs of Urban Service Provision

Anil Markandya, Aarsi Sagar, Srikanth Shastri, Sahana Goswami, Indro Ray, Zeba Aziz, Sandeep Paul, Madhav Pai, Anirudh Tagat and Apurba Chatterjee

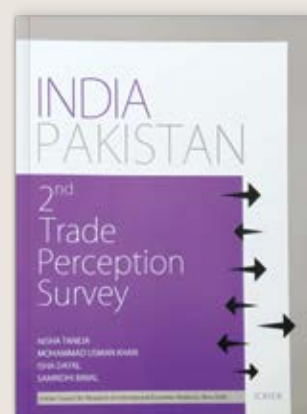
ICRIER and WRI, February 2018, 54 pages



### Trade Facilitation Measures to Enhance Participation of Women in Cross-border Trade in BBIN

Nisha Taneja, Sanjana Joshi, Shravani Prakash and Samridhi Bimal

ICRIER, January 2018, 28 pages



### Second India-Pakistan: Trade Perception Survey

Nisha Taneja, Mohammad Usman Khan, Isha Dayal and Samridhi Bimal

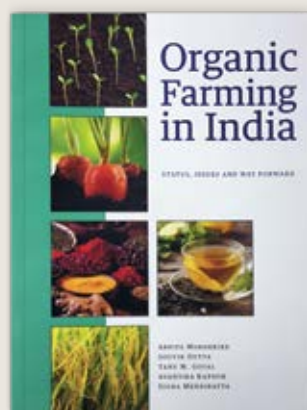
Academic Foundation and ICRIER, January 2018, 67 pages



### Future of Work in a Digital Era: The Potential and Challenges for Online Freelancing and Microwork in India

Rajat Kathuria, Mansi Kedia, Gangesh Sreekumar Varma, Kaushambi Bagchi and Saumitra Khullar

ICRIER, December 2017, 80 pages



### Organic Farming in India: Status, Issues and Way Forward

Arpita Mukherjee, Souvik Dutta, Disha Mendiratta, Avantika Kapoor and Tanu M. Goyal

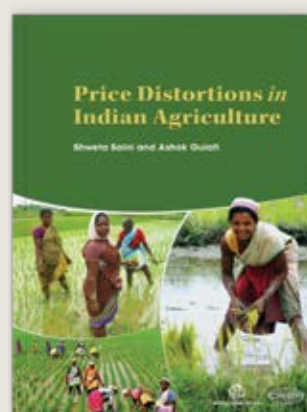
Academic Foundation, August 2017, 143 pages



### Estimating the Value of New Generation Internet Based Applications in India

Rajat Kathuria, Mansi Kedia, Gangesh Sreekumar Varma and Kaushambi Bagchi

ICRIER and BIF, July 2017, 56 pages



### Price Distortions in Indian Agriculture

Shweta Saini and Ashok Gulati

ICRIER and The World Bank, July 2017, 128 pages

## Working Papers

- WP No. 360 Saon Ray and Smita Miglani, “Upgrading in the Indian Automobile Sector: The Role of Lead Firms”, June 2018
- WP No. 359 Zeba Aziz, Indro Ray and Sandeep Paul, “The Role of Waterways in Promoting Urban Resilience: The Case of Kochi City”, May 2018
- WP No. 358 Ashok Gulati and Gayathri Mohan, “Towards Sustainable, Productive and Profitable Agriculture: Case of Rice and Sugarcane”, April 2018
- WP No. 357 Ashok Gulati, Tirtha Chatterjee and Siraj Hussain, “Supporting Indian Farmers: Price Support or Direct Income / Investment Support?” April 2018
- WP No. 356 Isher Judge Ahluwalia and Utkarsh Patel, “Solid Waste Management in India: An Assessment of Resource Recovery and Environmental Impact”, April 2018
- WP No. 355 Pankaj Vashisht and Jay Dev Dubey, “Changing Task Contents of Jobs in India: Implications and Way Forward”, March 2018
- WP No. 354 Arpita Mukherjee and Avantika Kapoor, “Trade Rules in E-commerce: WTO and India”, March 2018
- WP No. 353 Saurabh Trivedi, Indro Ray, Gregor Vulturius, Amrita Goldar, Labanya Jena Prakash, Sandeep Paul and Aarsi Sagar, “Scaling up Rooftop Solar Power in India: The Potential of Municipal Solar Bonds”, March 2018
- WP No. 352 Ashok Gulati, Perna Terway and Siraj Hussain, “Crop Insurance in India: Key Issues and Way Forward”, February 2018
- WP No. 351 Rajiva Ranjan Singh and Anandita Bagchi, “Demonetisation – A Golden Opportunity for Widening the Taxpayer Base”, January 2018
- WP No. 350 Nisha Taneja, Sanjana Joshi, Shravani Prakash and Samridhi Bimal, “Trade Facilitation Measures to Enhance Women’s Participation in Cross-border Trade in BBIN”, January 2018
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- WP No. 347 Arpita Mukherjee and Avantika Kapoor, “India and Trade Facilitation in Services (TFS) Agreement: Concerns and Way Forward”, November 2017
- WP No. 346 Anwarul Hoda and Durgesh K. Rai, “Labour Regulations in India: Rationalising the Laws Governing Wages”, October 2017
- WP No. 345 Tanu M. Goyal, Arpita Mukherjee and Avantika Kapoor, “India’s Exports of Food Products: Food Safety Related Issues and Way Forward”, September 2017
- WP No. 344 Renu Kohli, Pravakar Sahoo and M. Shuheb Khan, “Developing India’s Offshore Local Currency Bond Market: Lessons from Emerging Countries”, August 2017
- WP No. 343 Shweta Saini, Sameedh Sharma, Ashok Gulati, Siraj Hussain and Joachim von Braun, “Indian Food and Welfare Schemes: Scope for Digitization towards Cash Transfers”, August 2017
- WP No. 342 Arpita Mukherjee, Souvik Dutta, Disha Mendiratta, Avantika Kapoor and Tanu M. Goyal, “Promoting Organic Food Products and Exports: Status, Issues and Way Forward”, July 2017
- WP No. 341 Jaivir Singh, Deb Kusum Das, Homagni Choudhury, Prateek Kukreja and Kumar Abhishek, “Factors Influencing Indian Manufacturing Firms’ Decision to Hire Contract Labour”, July 2017
- WP No. 340 Anwarul Hoda and Durgesh K. Rai, “Environment and Labour on the Trade Agenda: Lessons for India from the TPP Agreement”, July 2017

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## Policy Briefs

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- Divya Chaudhry, Priyanka Tomar and Pallavi Joshi, “Deconstructing Indian Overseas Foreign Direct Investments Historical & Contemporary Trends”, Discussion Paper jointly with OXFAM, March 2018
- Anwarul Hoda, “Public Stockholdings Issue in the WTO – the Way Forward for India”, December, 2017
- Ashok Gulati, Ranjana Roy and Siraj Hussain, “Getting Punjab Agriculture Back on High Growth Path: Sources, Drivers and Policy Lessons”, July 2017

## Acknowledgements

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- Amway Opportunity Foundation
- Australian High Commission
- Bill and Melinda Gates Foundation (BMGF)
- Department for International Development (DFID)
- Department of Foreign Affairs and Trade (DFAT)
- Deutsches Instt. for Entwicklungspolitik (DIE)
- Ecorys Research and Consulting
- Embassy of Sweden
- ESCAP (South and South-West Asia)
- European Business & Technology Centre
- Fifteenth Finance Commission of India
- Ford Foundation
- Home Credit India Finance (P) Ltd.
- IDFC Foundation
- Indian Council of Social Science Research
- International Labour Office (ILO)
- International Monetary Fund (IMF)
- Internet Protocol Television Society
- International Association for Research in Income and Wealth
- Kotak Mahindra Bank
- LIRNEasia
- London School of Economics
- Ministry of Commerce and Industry, Government of India
- Ministry of Electronics and Information Technology
- Ministry of Housing and Urban Development
- Monsanto Holdings (P) Ltd.
- National Bank for Agriculture and Rural Development (NABARD)
- NCDEX Investor (Clients) Protection Fund Trust
- Organisation for Economic Co-operation and Development (OECD)
- Oxfam India
- Oxford Policy Management
- Paris School of Economics
- PepsiCo India Holdings (P) Ltd.
- Pricewater House Coopers (P) Ltd.
- Qualcomm Incorporated
- Rajiv Behari Lall
- Stockholm Environment Institute (SEI)
- Tata Education and Development Trust
- Tata Sky Ltd.
- Toshiba International Foundation
- United States Institute of Peace
- University of Tokyo
- World Bank
- World Resources Institute (WRI)
- ZEF University

## ICRIER Team



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## Director & Chief Executive

Dr. Rajat Kathuria

### Research Faculty

#### Professors

Dr. Shankar Acharya  
(Honorary Professor)  
Dr. Jaimini Bhagwati  
Dr. Ashok Gulati  
Mr. Anwarul Hoda  
Dr. Arpita Mukherjee  
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Ms. Saranya Sircar  
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#### Research Associates

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Ms. Tirtha Chatterjee  
Ms. Divya Chaudhry  
Ms. Pallavi Joshi  
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Ms. Smita Miglani  
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Dr. Ranjana Roy  
Ms. Prerna Terway  
Ms. Priyanka Tomar

#### Research Assistants

Ms. Akshaya Aggarwal  
Ms. Raavi Aggarwal

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Mr. R. M. Yadav  
Mr. Jovinder

#### Library Attendant

Mr. Deepak

#### Office Attendant

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## External Consultants

### Michelle Chow

Consultant, Wealth Planning and Tax  
Withers, Hong Kong

### Deb Kusum Das

Associate Professor, University of Delhi  
Delhi, India

### Noshir Dadrawala

CEO, Centre for Advancement of Philanthropy  
Mumbai, India

### Kavery Ganguly

Independent Consultant  
Mumbai, India

### B. N. Goldar

Former Professor  
Institute of Economic Growth  
Delhi, India

### Shuheb Khan

Consultant, Progressive Council  
Lucknow, India

### Sindhushree Khullar

Former CEO of NITI Aayog  
Government of India  
New Delhi, India

### Renu Kohli

Independent Consultant  
Delhi, India

### Anil Markandya

Former Scientific Director / Distinguished Ikerbasque  
Professor, Basque Centre for Climate Change  
Basque, Spain

### Biswajit Nag

Associate Professor  
Indian Institute of Foreign Trade  
New Delhi, India

### Parthapratim Pal

Professor, Indian Institute of Management  
Kolkata, India

### Shravani Prakash

Founder, elleNomics  
Bengaluru, India

### Irudaya Rajan

Professor, Centre for Development Studies  
Thiruvananthapuram  
Kerala, India

### Pravakar Sahoo

Professor, Institute of Economic Growth  
Delhi, India

### Jaivir Singh

Professor, Centre for the Study of Law and  
Governance  
Jawaharlal Nehru University  
New Delhi, India

### Rajiva Ranjan Singh

Former Member  
CBDT, Govt. of India  
New Delhi, India

### Meenu Tewari

Professor  
University of North Carolina at Chapel Hill  
North Carolina, USA

## Faculty Activities

### DIRECTOR & CHIEF EXECUTIVE

#### RAJAT KATHURIA

##### Appointed

- Member of the Implementation Committee for Intended Nationality Determined Contribution (INDC), Ministry of Environment, Forest & Climate Change, since June 2016
- Member of Confederation of India Industry (CII) Committee on International Trade Policy and Exports, since 2016
- Member, CII Economic Affairs Council, since 2017

##### International Conferences / Seminars / Workshops

- Speaker, '5<sup>th</sup> Seed Community on Transforming India-Pakistan Relations', Kathmandu, June 2-3, 2018
- Speaker, 'Employment Impacts of Disruptive Technologies and Policy Responses', at 'Global Trade and Innovation Policy Alliance (GTIPA) Annual Summit', Milan, May 16-19, 2018
- Speaker, 'Mixed Labour Force for India Inc. : Opportunities Presented by the Rise of Online Freelancing', at 'Jobs and Development Conference', World Bank, Bogota, May 11-12, 2018
- Speaker, 'Managing Globalisation in the Post Bretton Woods Era', at 'V20 workshop on Four Themes: New Values, New Politics, Policy Innovations, and Global Governance', Brookings, Washington DC, April 18, 2018
- Speaker, 'GST Implementation and the Growing Digital Economy in India', at workshop on 'Economic Reforms in India: Opportunities for Enhancing India-Japan Economic Partnership', 8<sup>th</sup> India-Japan Dialogue, Tokyo, February 22, 2018
- Discussant, 'Macroeconomic Trends in India and Japan', at workshop on 'Economic Reforms in India: Opportunities for Enhancing India-Japan Economic Partnership', 8<sup>th</sup> India-Japan Dialogue, Tokyo, February 22, 2018
- Speaker, '4<sup>th</sup> Economy Seed Community meeting on Transforming India-Pakistan Relations', Colombo, November 05, 2017

##### National Conferences / Seminars / Workshops

- Speaker, 'General Budget 2018 and its impact', organised by BITS Pilani, Pilani, February 12, 2018
- Speaker, 'Budget 2018-19 and its Impact on India Economy', at 'Five Institutions Union Budget Seminar 2018-2019', organised by National Institute of Public Finance and Policy (NIPFP), New delhi, February 10, 2018
- Keynote address at Inaugural Function of 'The Management Practices for the New Digital Economy', organised by Jaipuria Institute of Management, Noida, February 09, 2018
- Speaker, 'Role of National and Global Financial Institutions in Sustainable Finance', at 'China India Dialogue', New Delhi, January 29-30, 2018
- Speaker, 'Jobs and Social Security', at 'International Training Programme on Social Protection in a Globalised Economy', organised by Ministry of Finance at VV Giri National Labour Institute, Noida, January 19, 2018
- Speaker, 'Online Freelancing: Challenges, Opportunities and Impact in India', jointly organised by ICRIER and LinreAsia, New Delhi, December 27, 2017
- Introductory Address, 'Digital Telecom For Digital India', at '17<sup>th</sup> Telecom Leadership Forum & Awards', an Annual Meeting of the Indian Telecom Leaders and other Key Stake Holders, Cyber Media, New Delhi, December 14, 2017

- Special Address, 'Accelerating Satellite Broadband for Inclusive Growth', at 'India SatCom -2017', organised by Broadband India Forum (BIF), New Delhi, December 13, 2017
- Speaker, 'Trade & Investment: Developing North East Region as a Growth Engine of India's Economy', at 'North Eastern Development Summit', organised by India Foundation, Imphal November 21-22, 2017
- Speaker, 'The Changing Characteristics of Data Economy' at 'Curtain Raiser of Global Conference on Cyberspace (GCCS)', organised by Data Security Council of India (DSCI), New Delhi, November 20, 2017
- Speaker, 'Realising the Future Today' at 'Ericsson Connect 2017', organised by Cyber Media, New Delhi, November 17, 2017
- Speaker, 'Optimal Regulation and Competition for Innovation and Inclusive Growth', at 'CUTS-CIRC 5<sup>th</sup> Biennial Competition, Regulation & Development Conference', organised by CUTS International, Jaipur, November 11, 2017
- Speaker, 'Making Peace with the Environment', at a symposium organised by Bharat Soka Gakai at Chinmaya Mission, New Delhi, September 08, 2017

### Publications

#### Books / Reports / Chapters in Books

- Book, "Low Carbon Pathways for Growth in India" with Saon Ray and Kuntala Bandyopadhyay. Singapore: Springer, 2018
- Report, "The Anatomy of an INTERNET BLACKOUT: Measuring the Economic Impact of Internet Shutdowns in India" with Mansi Kedia, Gangesh Varma, Kaushambi Bagchi, Richa Sekhani. New Delhi: ICRIER, April 2018
- Chapter, "Mapping the Future of High Value Manufacturing in India", with Mansi Kedia, and Uttara Balakrishnana. In Jayant Menon and T. N. Srinivasan (eds.), *Integrating South and East Asia: Economics of Regional Cooperation and Development*, New Delhi: Oxford University Press, pages 201-248, 2018
- Report, "Future of Work in a Digital Era: The Potential and Challenges for Online Freelancing and Microwork in India", with Mansi Kedia, Gangesh Varma, Kaushambi Bagchi and Saumitra Khullar. New Delhi: ICRIER and LIRNEasia, December 2017
- Report, "Estimating the Value of Internet New Generation Based Applications in India", with Mansi Kedia, Gangesh Sreekumar Varma and Kaushambi Bagchi. New Delhi: ICRIER and Broadband India Forum, July 2017

## PROFESSORS

### JAIMINI BHAGWATI

#### Appointed

- Chairman of Infrastructure Development Finance Corporation (IDFC) Alternatives, since 2014
- Member Board of IDFC Holding Company In Delhi, since 2014

#### National Seminars / Conferences / Workshops

- Discussant, at G20'stakeholders' consultation on 'Agenda for Inclusive Growth', ICRIER, New Delhi, May 29, 2018
- Discussant, session on 'Present Economic Situation in India', at a meeting with Chinese Delegation, ICRIER, New Delhi, May 16, 2018
- Discussant, at a Roundtable Discussion on 'Jobs in India: Are we on the Right Track?', ICRIER, New Delhi, February 15, 2018
- Speaker, 'Budget Viewing Session', organised by PHD Chamber of Commerce, New Delhi, February 01, 2018

- Discussant, Panel Discussion on 'India and the Changing Global Dynamics: Perceptions and Strategies', organised by School of International Studies, Jawaharlal Nehru University, New Delhi, December 01, 2017
- Memorial Lecture on 'Collision and Convergence in Truth and Beauty at the Intersection of Social and Economic Transformation in Assam', on the occasion of Justice (Retd). K. N Saikia Memorial Foundation Day Lecture, organised by North East Institute of Advanced Studies, Vivekananda Kendra Institute, Guwahati, August 27, 2017

## ASHOK GULATI

### Appointed

- Director on the Central Board of Directors of Reserve Bank of India (RBI) appointed by the Government of India, since March 2017
- Director on the Board of Directors of the National Bank for Agriculture and Rural Development (NABARD), since 2017
- Co-Chair of the Task Force for G-20 on *Ending Hunger in Sustainable Agriculture* (Chair – Joachim von Broun), since 2017
- Member of the Madhya Pradesh Chief Minister's Task Force for Agriculture, since 2016
- Member of the Rajasthan Chief Minister's Task Force for Agriculture, since 2016
- Member of the Confederation of Indian Industry (CII) Expert Group on Economy, since 2016

### International Seminars / Conferences / Workshops

- Participated in the 'Global Forum on Agriculture and the Committee for Agriculture Meeting', organised by Organisation for Economic Cooperation and Development (OECD), Paris, France, May 14-19, 2018
- Panellist, session on 'Innovation and Technology in Food Production', at 'A Sustainable Food Future: Technology, Resource Use and Resilience Conference', organised by Chatham House, The Royal Institute of International Affairs, London, UK., November 27-28, 2017
- Participated at the '169<sup>th</sup> session of the Committee for Agriculture, Global Club of Directors Meetings', organised by Organisation for Economic Cooperation and Development (OECD), Paris, France, November 07-08, 2017
- Panellist, session on 'The Business of Small Holder Farmers-Building Resilience and Mitigating and Adapting to Climate Change in African Agriculture', at '7<sup>th</sup> African Green Revolution Forum, 2017 conference', organised by Alliance for a Green Revolution in Africa (AGRA), Abidjan, Cote d'Ivoire, September 06, 2017
- Panellist, session on 'Targeting Innovation Investments for Agricultural Growth and Food Security', in the 07<sup>th</sup> African Green Revolution Forum, 2017 Conference, organised by Alliance for a Green Revolution in Africa (AGRA), Abidjan, Cote d'Ivoire, September 05, 2017
- Presentation, 'Exploring India-China Cooperation in Agriculture & Food', at the session 'Cooperation in Agriculture', in the '2<sup>nd</sup> India China Think Tank Forum Conference', jointly organised by the Chinese Academy of Social Sciences (CASS) and Indian Council of World Affairs (ICWA), Beijing, China, June 24, 2017
- Discussant, Meeting and Discussions with Senior Officials of Syngenta Foundation for Sustainable Agriculture (SFSA), Basel, Switzerland, June 10, 2017

### National Conferences / Seminars / Workshops

- Chair, session on 'Making Indian Agriculture Sustainable and Profitable', at the Two-Days National Consultation Meetings on Farm Sector Issues, Pune, June 20-22, 2018
- Speaker, Report Launch on 'Water Productivity Mapping of Major Indian Crops', organised by NABARD, New Delhi, June 14, 2018

- Speaker, 'Doubling Farmers' Income by 2022-23' and 'Pricing and Profitability in Indian Agriculture', at 'Phase V Mid-Career Training Program of IAS Officers on Agriculture Issues related to Enhancing Productivity and Reducing Risk in Agriculture', Lal Bahadur Shastri National Academy of Administration (LBSNAA), Mussoorie, Uttarakhand, June 05-07, 2018
- Presentation on 'Unleashing Bihar Agriculture Potential' at Roundtable Discussion on 'Bihar's Agricultural Potential', jointly organised by Department of Agriculture, Government of Bihar and ICRIER, Patna, Bihar, April 27, 2018
- Panellist, session on 'Seven Decades of Independent India: Ideas and Reflections', at ISAS Book Launch And Panel Discussion, organised by the University of Singapore and Institute of South Asian Studies, Mumbai, March 28, 2018
- Presentation on 'Doubling Farmers' Income by 2022', at 'Vegetable Seeds Annual Meeting', organised by Bayer Seeds Private Ltd, Hyderabad, March, 15, 2018
- Special Guest Speaker, at 'Global Castor Conference', organised by Solvent Extractors' Association of India, Ahmedabad, Gujarat, February 24, 2018
- Keynote Speaker, in the inaugural session of the 'National Seminar on Challenges of Agricultural Policy Reforms in India', organised by the Centre for Agricultural Policy Dialogue, New Delhi, January 05, 2018
- Keynote Speaker, on the topic of 'Agricultural Growth & Poverty Elimination', at the '50<sup>th</sup> Skoch Summit' organised by Skoch Group, New Delhi, December 20, 2017
- Presentation on 'Resurrecting Indian Agriculture', at '19<sup>th</sup> Annual Neemrana Conference', jointly organised by the ICRIER, NBER and NCEAR, Neemrana Fort, Rajasthan, December 15-17, 2017
- Chair, session on 'Agricultural and Rural Employment', at the conference on 'Accelerating Growth through Employment', organised by Pune International Center, Pune, December 09, 2017
- Presentation on 'Agricultural Research and Extension System in India: Trends, Current Status and Way Forward', at the Roundtable session on 'Role of Agriculture Extension in India', ICRIER, New Delhi, December 08, 2017
- Presentaion on 'Economics of Farm Operations', in the seminar 'Fertilizer and Farm Income', organised by the Fertilizer Association of India, New Delhi, December 06, 2017
- Participated in the first Meeting on Pre-budget consultations for Union Budget 2018-19 chaired by the Hon'ble Finance Minister, Shri Arun Jaitley organised by the Ministry of Finance, New Delhi, December 05, 2017
- Presentation on 'The Dragon & the Elephant: Reforming India's Agriculture – Lessons from Chinese Reforms', organised by Institute of Chinese Studies, New Delhi, November 22, 2017
- Participated in the Core Group Meeting to discuss on 'Doubling Farmers' Income', organised by the Confederation of Indian Industry, New Delhi, October 31, 2017
- Chair, session on 'Agriculture and Water', at '5<sup>th</sup> India Water Week', organised by National Water Development Agency, New Delhi, October 12, 2017
- Presentation on 'The Agricultural Policy Context in India', at Roundtable session on 'Agricultural Policies in India', organised by ICRIER, New Delhi, October 11, 2017
- Presentation on 'Doubling Farm Income' at the National Council Meeting of CII, organised by the Confederation of Indian Industry (CII), Lucknow, Uttar Pradesh, September 01, 2017
- Guest Speaker, session on 'India Food Futures Briefing' in the 'Australian Business Week in India (ABWI) – Agri Business Program Conference', organised by the Australian Trade and Investment Commission, Govt. of Australia, New Delhi, August 29, 2017
- Lecture on 'Doubling Farmers' Income', organised by the Emkay Global Financial Services Limited, Mumbai, August 23, 2017

- Panellist, 'World Bank Group Country Engagement Dialogue Discussion', organised by World Bank, New Delhi, August 17, 2017
- Lecture on 'Agri under Modi', organised by India Habitat Center, New Delhi, August 16, 2017
- Presentation on 'Price Distortions in Indian Agriculture', at the Release of 'ICRIER – World Bank Report on Price Distortions in Indian Agriculture', followed by a Roundtable session on 'Current Issues in Indian Agriculture', organised by ICRIER, New Delhi, July 18, 2017
- Presentation at the release of Report 'Getting Punjab Agriculture Back on High Growth Path: Sources, Drivers and Policy', Punjab, July 05, 2017

## Publications

### Books / Reports / Chapters in Books

- Report, "Agricultural Policies in India", co-authored with Shweta Saini, Anwarul Hoda, Prerna Terway and the OECD Trade & Agriculture Directorate Team, ICRIER, July, 2018
- Report, "Water Productivity Mapping of Major Indian Crops", co-authored with Bharat R. Sharma, Gayathri Mohan, Stuti Manchanda, Indro Ray and Upali Amarasinghe, ICRIER, June, 2018
- Report, "Agricultural Extension Systems in India: Review of Current Status, Trends and Way Forward", co-authored with Pravesh Sharma, Anisha Samantara and Prerna Terway, ICRIER, May, 2018
- Chapter, "Food and Agriculture Policies in India: Evolution and Performance", co-authored with Shweta Saini. In Meyers, William H. and Thomas Johnson (eds), *Handbook of International Food and Agricultural Policies*, pages 247-268, Published by Singapore: World Scientific, 2018
- Chapter, "Towards Sustainable, Productive and Profitable Agriculture", co-authored with Gayathri Mohan. In Rai, Vinod and Amitendu Palit (eds), *Seven Decades of Independent India: Ideas and Reflections*, pages 66-78, New Delhi: Penguin Viking, 2018
- Chapter, "25 years of policy tinkering in Agriculture", co-authored with Shweta Saini. In Mohan, Rakesh (ed) *India Transformed: 25 years of Economic Reforms*, pages 275-298, New Delhi: Penguin Viking, August, 2017
- Report, "Price Distortions in Indian Agriculture", co-authored with Shweta Saini, World Bank and ICRIER, July, 2017
- Report, "Getting Punjab Agriculture Back on High Growth Path: Sources, Drivers and Policy Lessons", co-authored with Ranjana Roy and Siraj Hussain, ICRIER, July, 2017

### Refereed Journals

- "Wooing the Farmer", co-authored with Ranjana Roy. In *Seminar*, vol. no 701, pages 57-62, January, 2018.
- "Economics of Farm Operations", co-authored with Ranjana Roy in pre-print seminar series *Fertilizers and Farm Income*, FAI Annual Seminar, December, 2017
- "Key Policy Actions for Sustainable Land and Water Use to Serve People", co-authored with Joachim von Braun and Homi Kharas. In *Economics: The OpenAccess, Open-Assessment E-Journal*, vol. no. 11, issue no. 32, pages 1-13, 2017, <http://dx.doi.org/10.5018/economics-ejournal.ja.2017-32>

### Working Papers / Policy Briefs

- "Towards Sustainable, Productive and Profitable Agriculture: Case of Rice and Sugarcane", co-authored with Gayathri Mohan, ICRIER, working paper, no. 358, April, 2018
- "Supporting Indian Farmers: Price Support or Direct Income / Investment Support?" co-authored with Tirtha Chatterjee and Siraj Hussain, ICRIER, working paper, no. 357, April, 2018
- "Crop Insurance in India: Key Issues and Way Forward", co-authored with Prerna Terway and Siraj Hussain, ICRIER, working paper, no. 352, February, 2018

- “Agricultural Commodity Futures: Searching for Potential Winners”, co-authored with Tirtha Chatterjee and Siraj Hussain, ICRIER, working paper, no. 349, December, 2017
- Indian Food and Welfare Schemes: Scope for Digitization towards Cash Transfers”, co-authored with Shweta Saini, Sameedh Sharma, Siraj Hussain and Joachim von Braun, ICRIER, working paper, no. 343, August, 2017 (also published in the Center for Development Research (ZEF), University of Bonn, Germany, discussion paper, no. 241)
- Innovations spearheading the next transformations in India’s agriculture, co-authored with Kavery Ganguly, and Joachim von Braun, ZEF Working Paper No. 159, University of Bonn, Germany, July, 2017

### ANWARUL HODA

#### International Seminars / Conferences / Workshops

- Presentation on “Agricultural Policies in India” at the meeting of the OECD Committee on Agriculture, Paris, May 16, 2018

#### National Conferences / Seminars / Workshops

- Speaker, Roundtable on ‘Impact of Trade Agreements on ICT Hardware Sector’ organised by Manufacturers Association for Information Technology (MAIT), New Delhi, June 28, 2018
- Speaker, at ‘Programme on India’s Free Trade Agreements: Dynamics and Diagnostics of Trade Prospects’, organised by PHD Chamber of Commerce and Industry, New Delhi, May 30, 2018
- Chair, the ‘Jury Meeting of ICC’s Annual Logistics Excellence Awards’, organised by Indian Chamber of Commerce (ICC), New Delhi, March 16, 2018
- Panellist, discussion at the release of the Report ‘Organic Farming in India: Status, Issues and Way Forward’, organised by ICRIER, New Delhi, August 23, 2017

#### Publications

##### Books / Reports / Chapters in books

- Book, *Tariff Negotiations and Renegotiations under the GATT and the WTO: Procedures and Practices*, (2<sup>nd</sup> ed.). Cambridge University Press, 2018
- Chapter, “Trade and Investment Barriers Affecting International Production Networks in India”, co-authored with Durgesh Kumar Rai. In Jayant Menon and T. N. Srinivasan (eds.), *Integrating South and East Asia*, New Delhi: Oxford University Press, pages 293-343, 2018

##### Working Papers / Policy Papers

- “Public Stockholdings Issue in the WTO- the Way Forward for India”, ICRIER, policy series, no. 17, November 2017
- “Labour Regulations in India: Rationalising the Laws Governing Wages”, co-authored with Durgesh Rai, ICRIER, working paper, no. 346, October 2017
- “Environment and Labour on the Trade Agenda: Lessons for India from the TPP Agreement”, co-authored with Durgesh Rai, ICRIER, working paper, no. 340, July 2017

##### Other Activities

- As chairperson of the Expert Group on “Strengthening of Institutional Mechanism for Regular Collection and Compilation of Data on International Trade in Services” convened by CSO, MoSPI finalised Report of the Group, March 2018

## **ARPITA MUKHERJEE**

### **Appointed**

- Member, Expert Committee for the Development of the Business Service Price Index (BSPI), Ministry of Commerce and Industry, Government of India, since February 2018
- Member, Asian Institute of Transport Development, since April 2017
- Appointed in the Panel of Experts for Indian Union Public Service Commission (UPSC) evaluations, since June 2016
- Member of the Associated Chambers of Commerce of India (ASSOCHAM) Direct Selling Task Force, since April 2017
- Member of the Editorial Board of the journals:
  1. Finance Forum, published by Pisco Med Publishing Pte. Ltd., Singapore, since May 2018
  2. Journal of International Commerce, Economics and Policy, published by World Scientific Publishing, Singapore, since February 2014
  3. Journal International Review of Public Administration (IRPA), published by Taylor and Francis Group, Korea, since January 2014

### **International Conferences / Seminars / Workshops**

- Presentation on 'India's Experience with Special Economic Zones: Status, Concerns and Way Forward', at the Conference 'Asia FDI Forum IV on Special Economic Zones Issues & Implication for Investment Law' jointly organised by the Faculty of Law, The Chinese University of Hong Kong, Columbia Center on Sustainable Investment and World Economic Forum in Hong Kong, China, March 22-23, 2018
- Presentation on 'Enhancing Trade in Organic Food Product through Right Policy', at the '15<sup>th</sup> ASEAN Food Conference - Food Science and Technology: Integration for ASEAN Economy Community Sustainable Development', organised by Vietnam Institute of Agricultural Engineering and Post-Harvest Technology and Vietnam Association of Food Science and Technology, Ho Chi Minh City, Vietnam, November 14-17, 2017
- Presentation on 'Enhancing EU-India Organic Food Trade: A Survey of Indian Companies', at the Conference on 'Social Science, Multidisciplinary and European Studies', organised by Masters International Research & Development Center, Vienna, Austria, September 14, 2017
- Panellist, discussion on 'Trade & Tourism through Connectivity – Focus North East & East' at the conference on 'Delhi Dialogue IX – Charting the course for India-ASEAN Relations for the Next 25 Years' jointly organised by Indian Chamber of Commerce, Kolkata, Federation of Indian Chambers of Commerce and Industry and Ministry of External Affairs, New Delhi, July 5, 2017

### **National Conferences / Seminars / Workshops**

- Panellist, discussion on 'Role of Institutions in Economic Growth and Development' at the seminar on 'Drivers of Economic Growth: Innovations, Institutions and Policies', organised by Department of Economics, Jamia Milia Islamia, New Delhi, March 14, 2018
- Presentation on 'Role of Digital Economy in Facilitating Inclusive Trade', at the Workshop 'Understanding the Digital Economy: What is it and How Can it Transform Asia?' jointly organised by Asian Development Bank Institute, Tokyo; ASEAN-India Center, Research and Information Systems for Developing Countries and National Association of Software and Service Companies, New Delhi, February 21, 2018
- Panellist, discussion on 'Market Access in Services', in ITS Probationers Programme, organised by Indian Institute of Foreign Trade (IIFT), New Delhi, March 13, 2018
- Panellist, discussions on 'Global and Local Organic Market' and 'Local Market' at the 'Organics & Millets- International Trade Fair 2018', organised by International Competence Centre for Organic Agriculture (ICCOA), Bangalore, January 20, 2018

- Presentation on 'Services value chain & Merchandise linkages', to Foreign Trade Development Officer's (FTDO) of Directorate General of Foreign Trade (DGFT) at the 'Mid-Career Training Programme (MCTP) on International Trade & Management', organised by Indian Institute of Foreign Trade (IIFT), New Delhi, January 29, 2018
- Presentation on 'Civil Aviation Sector in India: Growth and Prospects', at '43<sup>rd</sup> Advanced Professional Programme in Public Administration (APPPA)', organised by Indian Institute of Public Administration (IIPA), New Delhi, December 13, 2017
- Presentation on 'Overview of Service Trade Dynamics', at the '3 days Training Programme on Basics of WTO and International Trade', organised by Indian Institute of Foreign Trade (IIFT), New Delhi, December 7, 2017
- Panellist, discussion on 'Legal and Regulatory Framework and Role of States in Development of Direct Selling Industry', at the 'International Conference on Direct Selling – Need for Policy & Regulatory Framework', organised by The Associated Chambers of Commerce of India's Direct Selling Task Force, New Delhi, November 22, 2017
- Panellist, discussion on 'Making India A Global Food Hub: Opportunities and Challenges', at the conference on 'Doubling Farmers' Income by 2022 – The Road Ahead', organised by Business Standard, New Delhi, October 24, 2017
- Presentation on 'Key Findings of the Study Organic Farming in India: Status, Issues and Way Forward', at the Release of the Report Seminar, New Delhi, August 23, 2017

### Publications

#### Books / Reports / Chapters in Books

- Chapter, "Integrating South and Southeast Asia through Services Value Chain: The Case of India and Thailand", with Tanu M. Goyal. In Jayant Menon and T. N. Srinivasan (eds.), *Integrating South and East Asia*, New Delhi: Oxford University Press, pages 344-390, 2018
- Report, "Organic Farming in India: Status, Issues and Way Forward", co-authored with Souvik Dutta (et al), New Delhi: Academic Foundation, August 2017

#### Papers in Refereed Journals

- "Enhancing Trade in Organic Food Products through Right Policy", with Disha Mendiratta. in *Proceedings of the 15<sup>th</sup> ASEAN Conference on Food Science and Technology Journal of the 15<sup>th</sup> ASEAN Food Conference*, Science and Technics Publishing House, pgs 431-440, November 2017
- "Enhancing EU-India Organic Food Trade: A Survey of Indian Companies", with Tanu M. Goyal and Avantika Kapoor. in *Vienna 2017 Conference Journal*, Masters International Research & Development Center (MIRDEC), pgs 27-42, September 2017

#### Working Papers / Policy Briefs

- "Trade Rules in E-commerce: WTO and India", co-authored with Avantika Kapoor, ICRIER, working paper, no. 354, March 2018
- "Understanding the Opportunities and Risks in Organic Food Businesses Case Studies of Companies in India and the UK", co-authored with Souvik Dutta and Avantika Kapoor, IIMB, working paper, no. 561, December 2017
- "India and Trade Facilitation in Services (TFS) Agreement: Concerns and Way Forward", co-authored with Avantika Kapoor, ICRIER, working paper, no. 347, October 2017
- "India's Exports of Food Products: Food Safety Related Issues and Way Forward", co-authored with Tanu M. Goyal and Avantika Kapoor, ICRIER, Working paper, no. 345, September 2017
- "Promoting Organic Food Products and Exports – Status, Issues and Way Forward", co-authored with Souvik Dutta (et al), ICRIER, working paper, no. 342, July 2017

## Others

- India-Australia Enhancing Trade, Investment & Cooperation with Avantika Kapoor in *Diplomacy and Beyond*, pages 16-18, October 2017
- Nutraceutical, Functional Foods, and Dietary Supplements Industry Market in Asia, with Avantika Kapoor. in *NuFFoods Spectrum*, Volume 4, Issue 10, June 2017

## NISHA TANEJA

### International Conferences / Seminars / Workshops

- Panellist, session on 'Advancing BIMSTEC Cooperation' in 'Transit and Multimodal Connectivity: Roadways, Waterways, Railways and Aviation', jointly organised by The Asia Foundation and DPG, Yangon, Myanmar, June 14-15, 2018
- Participant at the Fifth Economic Seed Community Meeting on 'Transforming India-Pakistan Relations (Cultural, Economic and Security)', organised by FES, Kathmandu, Nepal, June 3-5, 2018
- Presentation on 'India Myanmar Trade & Connectivity', at Sagaing Chamber of Commerce and Industry, Monywa, Myanmar, November 29, 2017
- Presentation on 'India Bhutan Trade', at Bhutan Chamber of Commerce, Thimpu, November 22, 2017
- Presentation on 'India-Pakistan Trade', at the Conference on 'India-Pakistan Trade Continues Despite Tensions and the Road Ahead', jointly organised by ICRIER and SDPI, Kathmandu, Nepal, November 17, 2017
- Panellist, session on 'Deepening Economic Integration for Inclusive and Sustainable Development in South Asia', at the 'Tenth South Asia Economic Summit', organised by SAWTEE, Kathmandu, Nepal, November 14-16, 2017

### National Conferences / Seminars / Workshops

- Presentation on 'India-Myanmar Border Trade and Connectivity', at the Conference on 'Sub-regional Cooperation between India Bangladesh and Myanmar', organised by ICRIER, New Delhi, April 23, 2018
- Presentation on 'Connectivity in the BBIN Region', at the Conference on 'Advancing the BBIN Sub-regional Cooperation Agenda', organised by Delhi Policy Group, New Delhi, December 13-14, 2017
- Speaker, at the 'National Diagnostic Study on SPS / TBT Issues under the SASEC Programme for India', organised by Department of Commerce and Asian Development Bank, New Delhi, December 11, 2017
- Panellist, session on 'Reinvigorating Regional Growth through Trade, Connectivity, and Investment', at the conference on 'BIMSTEC@20 The Way Forward', organised by Observer Research Foundation, New Delhi, December 6, 2017
- Panellist, session on 'Understanding the Dynamics of Informal Cross-border Trade in Agricultural Products in Eastern South Asia', organised by Consumer Unity & Trust Society (CUTS) International, New Delhi, August 4, 2017
- Panellist, Conference session on 'Trade Facilitation Agreement: Learning from Implementation Experiences', organised by FICCI, New Delhi, July 21, 2017

## Publications

### Books / Reports / Chapters in Books

- Book, "Sub-Regional Cooperation between India, Myanmar and Bangladesh: Trade, Investment and Connectivity", co-edited with Deb Kusum Das and Samridhi Bimal. New Delhi: Academic Foundation, 2018
- Report, "Trade Facilitation Measures to Enhance Women's Participation in Cross-border Trade in BBIN", co-authored with Sanjana Joshi and Shravani Prakash and Samridhi Bimal. New Delhi: ICRIER, January 2018

### Papers in Refereed Journals

- “India-Pakistan Trade and Regionalism in South Asia”, co-authored with Samridhi Bimal and Isha Dayal. *Journal of International Studies*, SAGE Publication, vol. no. 50, issue no.4, pages1-25, 2017

### Working Papers / Policy Briefs

- “Trade Facilitation Measures to Enhance Women’s Participation in Cross-border Trade in BBIN”, co-authored with Sanjana Joshi, Shravani Prakash and Samridhi Bimal, ICRIER, working paper, no.350, January 2018

### Others

- UAE-India Friends For and From Ever, co-authored with Taher Nadeem. *Diplomacy and Beyond*, special edition, 2017

## SENIOR FELLOWS

### RADHICKA KAPOOR

#### International Conferences / Seminars / Workshops

- Presentation on ‘India’s Jobs Challenge’, in ‘Sussex India Conference’, Sussex, UK, May 26 2018
- Presentation on ‘Informality in India’s Formal Manufacturing Sector’, at ‘World Bank-IZA Conference’, Bogota, Colombia, May 11-12, 2018
- Presentation on ‘India’s Economic Outlook’, at ‘5<sup>th</sup> ADB-Asia Think Tank Development Forum’, Colombo, Sri Lanka, September 20-21, 2017

#### National Conferences / Seminars / Workshops

- Panellist, session on ‘Skilling and Re-skilling for Industry 4.0’ at ‘CIS’s Workshop on the Future of Work’, New Delhi, July 31, 2018
- Presentation on ‘Why India’s Employment Data is not Capturing Women’s Economic Activity’, at ‘Kathopakathan- a Conversation on Women’s Economic Empowerment’ seminar, NCAER, New Delhi, March 24, 2018
- Presentation on ‘Informality in India’s Formal Sector’, at ‘South Asia University Guest Seminar Series’, New Delhi, March 9, 2018
- Discussant, in ‘Economic Outlook Review’, NCAER, New Delhi, February 16, 2018
- Panellist, in ‘Samwaad- a Discussion on India’s Employment Data Challenge’, New Delhi, December 11, 2017
- Presentation on ‘The Challenge of Productive Job Creation in India’, at ‘19<sup>th</sup> Annual Neemrana Conference’, jointly organised by ICRIER, NBER, NCAER, Neemrana, December 15-17, 2017
- Presentation on ‘The Contractualisation of India’s Workforce: Causes and Consequences’, Delhi School of Economic’s Winter School, New Delhi, December 15, 2017

### Publications

#### Working Papers / Policy Briefs

- “Stylized facts on India’s Organised Manufacturing Sector”, CES, working paper, Azim Premji University, May 2018
- “Waiting for Jobs”, ICRIER, working paper, no. 348, November, 2017(also published in Economic Development of India, April 2018)

## ALI MEHDI

### International Conferences / Seminars / Workshops

- Participant, 'Meeting of Global Health Policy Think Tanks and academic institutions', Geneva, December 4-5, 2017
- Participant, 'EAT Asia-Pacific Food Forum: Healthy and Sustainable Food for All', Jakarta, October 30-31, 2017
- Participant, 'The Think 20 Summit Berlin: Global Solutions', Berlin, May 29-30, 2017
- Inaugural Speaker, 'World Health Summit', Montreal, May 8-9, 2017

### National Conferences / Seminars / Workshops

- Discussant, 'IARIW-ICRIER Jobs Conference', New Delhi, November 24, 2017

### Publications

#### Books / Reports / Chapters in Books

- Book, *Freedoms, fragility and job creation: Perspectives from Jammu and Kashmir, India*, co-authored with Divya Chaudhry and Priyanka Tomar. Singapore: Springer, 2018
- Chapter, "The European Union as a Preferred Destination for Indian Migrants? Prospects, Patterns, Policies and Challenges", co-authored with Divya Chaudhry (et al). In Rajan, Irudaya (ed.) *India Migration Report 2018*. New Delhi: Routledge, 2018
- Report, *India-EU Migration and Mobility: A Status Report*, co-authored with Divya Chaudhry, Pallavi Joshi and Priyanka Tomar, ILO India, April 2018

## SAON RAY

### Appointed

- Research Advisory Committee Expert for Ph.D. at The Centre for International Trade and Development (CITD) at the School of International Studies, Jawaharlal Nehru University, 2018

### International Conferences / Seminars / Workshops

- Presentation on 'Impact of financial technology on payment and lending in Asia', at Workshop on 'Digital Economy in Asia: What is it and How Can it Transform Asia?' jointly organised by AIC-RIS with ADBI, New Delhi, February 21-22, 2018
- Presentation on 'Economic Development and Energy Consumption in India' at forum on 'Conventional and New Energy Cooperation Among Ancient Civilizations', jointly organised by CNPC Economics & Technology Research Institute of China and ICEC Council, India, Beijing, November 2017

### National Conferences / Seminars / Workshops

- Presentation on 'Application of Innovative Technologies for Promoting Financial Inclusion in India', at stakeholder consultation, ICRIER, New Delhi, June 15, 2018
- Speaker, session on 'Global value Chains and Innovation Systems- the Role of Lead Firms', at IndiaLICS, jointly organised by CSIR, NISTADS and RIS, New Delhi, November 7, 2017
- Panellist, event on 'Clean and Renewable Energy', jointly organised by AIIB, Ministry of External Affairs, Ministry of Finance, RIS and FICCI, Bhopal, May 19, 2018

- Discussant, roundtable discussion on 'Sustainable Development, Uncertainties, and India's Climate Policy: Pathways towards Nationally Determined Contribution and Mid-Century Strategy', CEEW, New Delhi, February 21, 2018
- Chair, seminar session on 'Green Growth and the Right to Energy in India' by Rohit Azad, New Delhi, February 6, 2018
- Chair, session in '21<sup>st</sup> Annual conference of The Indian Political Economy Association (IPEA)'s, Indian Institute of Technology, New Delhi, December 8-9, 2017
- Chair, talk by Dr. Kaushik Deb, Head of Gas Analysis, BP Group Economics Team on 'BP Statistical Review of World Energy 2017', New Delhi, August 17, 2017
- Chair, seminar session on 'South Asia's Hotspots: How Climate Change will Affect Living Standards' by Muthukumara Mani, New Delhi, July 14, 2017

### Publications

#### Books / Reports / Chapters in Books

- Book, "Low Carbon Pathways for Growth in India" with Rajat Kathuria and Kuntala Bandyopadhyay. Singapore: Springer, New Delhi, 2018
- Book, *Global Value Chains and the Missing Links: Cases from Indian Industry*, co-authored with Smita Miglani. London: Routledge, 2018
- Chapter, "Best Practices to be Adhered by SMEs to Integrate in GVCs". In *Handbook of the 7<sup>th</sup> Global Economic Summit*, WTC, 2018

#### Working Papers / Policy Briefs

- "Upgrading in the Indian Automobile Sector: The Role of Lead Firms", co-authored with Smita Miglani, ICRIER, working paper, no. 360, June 2018

### PANKAJ VASHISHT

#### International Conferences / Seminars / Workshops

- Presentation on 'Task Content of Jobs in India', at '19<sup>th</sup> Neemrana Conference', jointly organised by NBER, ICRIER and NCAER, Neemrana, December 15-17, 2017
- Presentation on 'Destruction or Polarization: Estimating the Impact of Technology on Jobs in Indian Manufacturing', at 'International Conference in Economics', jointly organised by the World Economic Research Institute and Technical University of Ostrava, Paris, France, July 25-27, 2017

#### National Conferences / Seminars / Workshops

- Presentation on 'Future of Manufacturing Jobs in India', at 'Future of Work in India Conference', jointly organised by International Labour Organization and Tandem Research, Goa, September 12-13, 2017
- Lecture, 'Changing Task Content of Jobs in India: Implications and Way Forward', at Centre for New Economic Studies, OP Jindal Global University, Sonapat, September 21, 2017

### Publications

#### Working Papers / Policy Briefs

- "Changing Task Content of Jobs in India: Implications and Way Forward", co-authored with Jay Dev Dubey, ICRIER, working paper, no. 355, March 2018

## RESEARCH ASSOCIATES / CONSULTANTS

### SAMRIDHI BIMAL

#### National Conferences / Seminars / Workshops

- Presentation on 'India-Myanmar Trade', at consultation organised at Moreh Trade Centre, Manipur, April 3, 2018

#### Publications

##### Books / Chapters in Books / Reports

- Book, "Sub-Regional Cooperation between India, Myanmar and Bangladesh: Trade, Investment and Connectivity", co-edited with Nisha Taneja and Deb Kusum Das. New Delhi: Academic Foundation, April 2018
- Report, "Trade Facilitation Measures to Enhance Women's Participation in Cross-border Trade in BBIN", co-authored with Nisha Taneja, Sanjana Joshi and Shravani Prakash. ICRIER, January 2018

#### Papers in Refereed Journals

- "India-Pakistan Trade and Regionalism in South Asia", co-authored with Nisha Taneja and Isha Dayal. *Journal of International Studies*, SAGE Publication, vol. no. 50, issue no.4, pages1-25, 2017

#### Working Papers / Policy Briefs

- "Trade Facilitation Measures to Enhance Women's Participation in Cross-border Trade in BBIN", co-authored with Nisha Taneja, Sanjana Joshi and Shravani Prakash ICRIER, working paper, no. 350, January 2018

#### Others

- GST: Simplifying Trading Procedures. *The Dialogue*, 25 August 2017
- Regional Investment Cooperation in South Asia. *The Dialogue*, 11 May 2017

### DIVYA CHAUDHRY

#### Publications

##### Books / Reports / Chapters in Books

- Chapter, "The European Union as a Preferred Destination for Indian Migrants? Prospects, Patterns, Policies and Challenges", co-authored with Ali Mehdi (et al). In Rajan, Irudaya (ed.) *India Migration Report 2018*. New Delhi: Routledge, 2018
- Report, "India-EU Migration and Mobility: A Status Report", co-authored with Pallavi Joshi, Priyanka Tomar and Ali Mehdi, ILO India, April 2018
- Report, "Deconstructing Indian Overseas Foreign Direct Investments (OFDI): Historical and Contemporary Trend", co-authored with Priyanka Tomar and Pallavi Joshi, New Delhi: Oxfam India, March 2018

#### Papers in Refereed Journals

- "Antimicrobial Resistance: The Next Big Epidemic", co-authored with Priyanka Tomar. *International Journal of Community Medicine and Public Health*, vol no. 4, issue no. 8, pages 2632-2636, August 2017

### TANU M. GOYAL

#### International Conferences / Seminars / Workshops

- Presentation on 'key findings of the report 'India's Development Assistance to Nepal: the Case of Education Sector', at a Seminar 'Deconstructing Development Assistance: India and Nepal', Kathmandu, May 29, 2018

- Chair, session six at '5<sup>th</sup> International Academic Conference on Social Science, Multidisciplinary and European Studies', Masters International Research and Development Center – MIRDEC Vienna, September 14, 2017

### National Conferences / Seminars / Workshops

- Lecture on 'Services Sector in India', organised by Indraprastha College for Women, Delhi University, New Delhi, September 25, 2017

### Publications

#### Books / Reports / Chapters in Books

- Chapter, "Integrating South and Southeast Asia through Services Value Chain: The Case of India and Thailand", with Arpita Mukherjee. In Jayant Menon and T. N. Srinivasan (eds.) *Integrating South and East Asia*, New Delhi: Oxford University Press, pages 344-390, 2018
- Chapter, "Enhancing India-EU Organic Food Trade: A Survey of Indian Companies", co-authored with Arpita Mukherjee and Avantika Kapoor. In Kemal Cebeci, Adam Pawlicz and Mohamed Zniber (eds.) *Mirdec-5<sup>th</sup> Vienna 2017 Conference Proceedings, Full Paper Series*, Masters International Danismanlik Arastirma Yayincilik, 2017
- Report, "Organic Farming in India: Status, Issues and the Way Forward", co-authored with Arpita Mukherjee (et al), New Delhi: Academic Foundation, August 2017

### Working Papers / Policy Briefs

- "India's Exports of Food Products: Food Safety Related Issues and Way Forward", co-authored with Arpita Mukherjee and Avantika Kapoor, ICRIER, working paper, no. 345, September 2017
- "Promoting Organic Food Products and Exports – Status, Issues and Way Forward", co-authored with Arpita Mukherjee (et al), ICRIER, working paper, no. 342, July 2017

## MANSI KEDIA

### Appointed

- Appointed as member of the Task Force to Review India's Direct Tax Code, November 2017

### International Conferences / Seminars / Workshops

- Speaker, seminar on 'Promoting Enabling Environment Conducive to Efficient Telecom Transmission Service Market', Dhaka, Bangladesh, June 27, 2018

### National Conferences / Seminars / Workshops

- Co-panellist, workshop on 'IT / IT-es Sector and the Future of Work in India', Bangalore, June 29, 2018
- Co-panellist, session on 'Business: Confidence: Role of Tax Policy & Administration', at '13<sup>th</sup> Indo-US Economic Summit', New Delhi, September 15, 2017

### Publications

#### Books / Reports / Chapters in Books

- Report, "The Anatomy of an Internet Blackout: Measuring the Economic Impact of Internet Shutdowns", co-authored with Rajat Kathuria (et al). New Delhi: ICRIER and Facebook Inc, April 2018
- Report, "Future of Work in a Digital Era: The Potential and Challenges for Online Freelancing and Microwork in India", co-authored with Rajat Kathuria (et al). New Delhi: ICRIER and LIRNEasia, December, 2017

- Chapter, “Mapping the Future of High Value Manufacturing in India”, co-authored with Rajat Kathuria and Uttara Balakrishnana. In Jayant Menon and T. N. Srinivasan (eds.), *Integrating South and East Asia: Economics of Regional Cooperation and Development*, New Delhi: Oxford University Press, pages 201-248, 2018
- Report, “Estimating the Value of New Generation Internet Based Applications in India”, co-authored with Rajat Kathuria (et al). New Delhi: ICRIER and Broadband India Forum, August 2017

## **PRATEEK KUKREJA**

### **National Conferences / Seminars / Workshops**

- Presented paper on ‘Labour Regulations and Informalization in the Organised Textile and Clothing Industry in India’, at ‘59<sup>th</sup> Annual Conference of Indian Society of Labour Economics’, Thiruvananthapuram, Kerala, 16-18 December, 2017

### **Publications**

#### **Books / Reports / Chapters in Books**

- Chapter, “Growth, Productivity and Innovation in MSMEs: Case of Indian Manufacturing Industries”, co-authored with Pradip Biswas and Parthasarathi Banerjee. In Sujit Bhattacharya et al (eds), *Policy Perspective on Innovation and Sustainable Development*, CSIR NISTADS - India S&T Series, 2017

### **Papers in Refereed Journals**

- “Law, Skills and the Creation of the Jobs as ‘Contract’ Work in India: Exploring Survey Data to Make Inferences for Labour Law Reform.” co-authored with J. Singh, D.K. Das, and K. Abhishek. In *Indian Journal of Labour Economics*, vol. 60, no. 4, 2018

### **Working Papers / Policy Briefs**

- “Factors Influencing Indian Manufacturing Firms’ Decision to Hire Contract Labour” , co-authored with J. Singh, D.K. Das, H. Choudhary and K. Abhishek, ICRIER, working paper, no 341, July 2017

### **Others**

- “Leather industry needs overhaul”. In *Fibre2Fashion*, July, 2017
- “Skill India: Fill the Gap”. In *Fibre2Fashion*, September, 2017

## **SMITA MIGLANI**

### **International Conferences / Seminars / Workshops**

- Presentation on ‘Role of Government Policy and other Enabling Factors in the Growth of Indian Automotive Industry’, at ‘Conference on Innovation, Economic Development and IP in India and China’, Renmin University of China, Beijing, December 18-19, 2017

### **National Conferences / Seminars / Workshops**

- Co-presenter, stakeholders’ consultation on ‘Application of Innovative Technologies for Promoting Financial Inclusion in India’, ICRIER, New Delhi, June 15, 2018
- Presentation on ‘Determinants of Market Integration in India: The case of Selected Commodities’, at ‘21<sup>st</sup> Annual Conference of Indian Political Economy Association’, Jointly organised by Indian Political Economic Association and Indian Institute of Technology, Delhi, December 8-9, 2017

## Publications

### Books / Reports / Chapters in Books

- Book, “Global Value Chains and the Missing Links - Cases from Indian Industry”, co-authored with Saon Ray. London: Routledge, 2018
- Report, “Effect of Consumer Finance on Financial Inclusion in India”, co-authored with Saon Ray and Sandeep Paul. Report Submitted to Home Credit India, May 2018
- Report, “Application of Innovative Technologies for Promoting Financial Inclusion”, co-authored with Saon Ray and Sandeep Paul. Report Submitted to Department of Economic Affairs, Government of India, May 2018

### Working Papers / Policy Briefs

- “Upgrading in the Indian Automobile Sector: The Role of Lead Firms”, co-authored with Saon Ray, ICRIER, working paper, no. 360, June 2018

## RESEARCH ASSISTANTS

### SANDEEP PAUL

#### National Conferences / Seminars / Workshops

- Presentation on ‘Financing Green Urban Infrastructure: Potential of Municipal Solar Bonds’, at ‘workshop on External Reviews: Safeguarding Environmental Integrity in the Indian Green Bond Market’, organised by Strategic Alliance on Green Bond Market Development in G20 Emerging Economies, Mumbai, November 17, 2017

## Publications

### Books / Reports / Chapters in Books

- Report, “Towards Smarter Service Provision for Smart Cities: Accounting for the Social Costs of Urban Service Provision”, co-authored with Anil Markandya et.al. ICRIER and WRI, February 2018
- Report, “Effect of Consumer Finance on Financial Inclusion in India”, co-authored with Saon Ray and Smita Miglani. Report Submitted to Home Credit India, May 2018
- Report, “Application of Innovative Technologies for Promoting Financial Inclusion”, co-authored with Saon Ray and Smita Miglani. Report Submitted to Department of Economic Affairs, Government of India, May 2018

### Working Papers / Policy Briefs

- “Promoting Climate Resilience of Kochi City – Role of Waterways”, co-authored with Zeba Aziz and Indro Ray, ICRIER working paper, no 359, May 2018
- “Scaling up Rooftop Solar Power in India: The Potential of Municipal Solar Bonds”, co-authored with Trivedi S, Ray I et.al, ICRIER, working paper, no.353, March 2018

### RICHA SEKHANI

## Publications

### Books / Reports / Chapters in Books

- Report, “The Anatomy of an Internet Blackout: Measuring the Economic Impact of Internet Shutdowns”, co-authored with Rajat Kathuria (et al). ICRIER and Facebook Inc , April 2018

- Report, “Short-Term Impact of GST on Small & Medium Businesses across India: Reflections from Case of Local Markets in Uttarakhand and Kerala”, co-authored with Deepanshu Mohan (et al). New Delhi: O. P. Jindal Global University, March 2018
- Report, “Governing Dynamics of Urban Informality: A Case Study of Local Markets in Phnom Penh (Cambodia)”, co-authored with Deepanshu Mohan (et al), New Delhi: O.P Jindal Global University, January 2018

#### Papers in Refereed Journals

- “On the Ways of Knowing and Understanding Informality”, with Deepanshu Mohan (et al). *Asian Journal of Public Affair*, vol. no.10, issue no. 2, March 2018





# **AUDITED ANNUAL ACCOUNTS**

# Audited Annual Accounts

## V SAHAI TRIPATHI & CO CHARTERED ACCOUNTANTS

C-593, LGF, Defence Colony  
New Delhi - 110024  
Tel. : +91-11- 46612531-33  
Fax : +91-11- 46540520  
E-Mail : vst@sahaitripathi.com

### INDEPENDENT AUDITOR'S REPORT

To  
The Members,  
Indian Council for Research on International Economic Relations,  
Core 6A, 4<sup>th</sup> Floor, India Habitat Centre,  
New Delhi - 110003.

The accompanying financial statements of Indian Council for Research on International Economic Relations (hereinafter referred as 'ICRIER') which comprise the Balance Sheet as at March 31, 2018 and the Income and Expenditure Account for the year then ended, and a summary of significant accounting policies and notes to accounts.

#### **Management's Responsibility for the Financial Statements:**

Management of the ICRIER is responsible for the preparation of these financial statements that give a fair view of the financial position and financial performance of ICRIER in accordance with Accounting Standards and other accounting pronouncements, to the extent applicable, issued by the Institute of Chartered Accountants of India from time to time. This responsibility includes the design implementation and maintenance of internal controls relevant to the preparation and presentations of the financial statements that gives a true and fair view and are free from material misstatement, whether due to fraud or error.

#### **Auditors Responsibility:**

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with the Standards on Auditing issued by the Institute of Chartered Accountants of India, to the extent applicable. Those Standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves following procedures to obtain evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal controls relevant to the ICRIER for preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the ICRIER's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of the accounting estimates made by the management, as well as evaluating the overall presentation of the financial statements.



We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

**Opinion:**

In our opinion and to the best of our information and according to the explanations given to us, the financial statements read with significant accounting policies and notes enclosed thereto, give a true and fair view in conformity with the accounting principles generally accepted in India :-

- In the case of the Balance Sheet, of the State of Affairs of the ICRIER as at March 31, 2018; and
- In the case of the Income and Expenditure Account, of the deficit for the year ended on that date

**Report on Other Legal and Regulatory Requirements:**

- a) We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit;
- b) In our opinion, proper books of account as required by law have been kept by the ICRIER so far as appears from our examination of those books;
- c) The Balance Sheet as at March 31, 2018 and the Income and Expenditure Account dealt with by this report are in agreement with the books of account;
- d) In our opinion, the Balance Sheet as at March 31, 2018 and the Income and Expenditure Account comply with the Accounting Standards and other accounting pronouncements, to the extent applicable, issued by the Institute of Chartered Accountants of India from time to time.

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For V Sahai Tripathi & Co  
Chartered Accountants  
FRN: 000262N

(Manish Mohan)

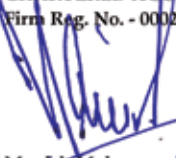



Partner





M.N-091607

Place: New Delhi

Date: 08<sup>th</sup> September, 2018



Indian Council for Research on International Economic Relations			
Balance Sheet as at March 31, 2018			
Particulars	Schedule No.	As at 31 March 2018 Amount (₹)	As at 31 March 2017 Amount (₹)
<b>SOURCES OF FUND</b>			
Endowment Fund		34,59,71,469	34,54,71,469
Opening Balance		34,54,71,469	30,49,71,469
Life Membership fee received during the year		-	-
Donations received during the year		-	4,00,00,000
Transferred from General Fund to RBI - Chair EF		5,00,000	5,00,000
<b>Building Fund</b>		15,73,84,806	15,00,00,000
Opening Balance		15,00,00,000	10,00,00,000
Received during the year		2,50,00,000	5,00,00,000
Accumulated depreciation reserve		(1,76,15,194)	-
Interest on Investment of Building Fund during the year		-	4,02,546
Transfer towards rent & maintenance paid to IHC		-	(4,02,546)
<b>Fixed Assets Fund-Net Block</b>		47,076	56,674
Fixed Assets Fund-Gross Block		40,00,000	40,00,000
(Accumulated depreciation reserve)		(39,52,924)	(39,43,326)
<b>General Fund</b>		5,56,61,902	7,38,26,168
Opening Balance		7,38,26,168	4,88,67,661
Transferred From Income & Expenditure Account		(1,81,64,267)	2,49,58,507
<b>Investment Equalisation Reserve</b>		79,869	1,95,637
<b>Current Liabilities &amp; Provisions</b>	1	2,82,81,065	3,00,44,304
Current Liabilities		1,04,53,073	1,44,63,583
Provisions		1,39,82,059	82,99,602
Grant received in advance		38,45,933	72,81,119
<b>TOTAL</b>		58,74,26,187	59,95,94,252
<b>APPLICATIONS OF FUND</b>			
Fixed Assets	2	18,47,81,312	15,88,64,058
Gross Block		24,70,25,439	20,22,87,785
Accumulated depreciation reserve		(6,22,44,127)	(4,34,23,727)
Investments	3	36,06,20,665	35,22,30,000
Long-term Investment		36,06,20,665	35,22,30,000
Current Assets, Loans & Advances	4	4,20,24,210	8,85,00,195
Cash and Bank		1,54,28,765	6,94,40,000
Loans, Advances & Other Recoverables		1,23,53,203	1,08,10,261
Grant Receivable		1,12,39,899	53,16,457
Prepaid Expenses		30,02,342	29,33,476
<b>TOTAL</b>		58,74,26,187	59,95,94,252
Significant Accounting Policies and Notes (Schedule 7)			
In terms of our separate report of even date			
FOR V SAHAI TRIPATHI & CO			
CHARTERED ACCOUNTANTS			
Firm Reg. No. - 000262N			
 Manish Mohan (Partner) M. No. 091607	 Rajeev Kapil (Secretary)	 Rajat Kathuria (Director & CE)	 Isher Judge Ahluwalia (Chairperson)
Place: New Delhi			
Date: 08 <sup>th</sup> September, 2018			

Indian Council for Research on International Economic Relations			
Income & Expenditure account for the year ended March 31, 2018			
Particulars	Schedule No.	Current Year Amount (₹)	Previous Year Amount (₹)
<b>A. INCOME</b>			
Grants	5	11,22,45,493	14,68,67,686
Received during the year		10,28,86,865	14,36,23,857
Receivable during the year		1,12,39,899	53,16,457
Received during the year for previous year		(53,16,457)	(60,33,466)
Brought Forward from Previous Year		72,81,119	1,12,41,957
Carried Forward for next year		(38,45,933)	(72,81,119)
Income/Profit on Investment		2,49,58,064	2,41,03,359
Interest on Investments for the year		2,17,23,698	2,45,05,905
Transfer to Building Fund		-	(4,02,546)
Profit on disposal of Mutual Fund Investment		32,34,366	-
Transfer from Building Fund for Extra office space		-	4,02,546
Interest on Savings Bank Account		28,77,092	23,41,761
Exchange Rate Fluctuation		(65,019)	(26,578)
Other Income	6	12,36,271	8,15,877
<b>TOTAL (A)</b>		<b>14,12,51,901</b>	<b>17,45,04,651</b>
<b>B. EXPENDITURE</b>			
Research Expenses-		11,69,55,962	11,79,53,040
Salaries & Allowances		5,45,41,772	5,21,71,195
Consultancy Charges		2,68,74,528	2,77,07,990
Travel Expenses		1,17,05,043	1,53,20,998
Workshops Seminars & Meetings		1,34,24,928	1,20,13,157
Publication Expenses		23,75,809	20,65,397
Communication Expenses		9,96,209	12,58,692
Library Expenses		70,37,673	74,15,611
Administrative Expenses-		2,96,82,347	2,36,88,954
Salaries & Allowances		2,63,42,976	2,03,60,841
Professional Services		3,99,902	5,09,375
Office Expenses		28,49,701	27,32,113
Fees and Subscriptions		89,768	86,625
Bad Debts Written Off		6,32,000	4,48,833
Overheads-		1,02,43,891	47,68,399
Utility & Electricity Charges		21,19,891	33,77,993
Repair and Maintenance		69,00,558	10,69,508
Property Tax		12,23,442	3,20,898
<b>TOTAL (B)</b>		<b>15,75,14,200</b>	<b>14,68,59,226</b>
<b>Surplus/(Deficit) before Tax and Depreciation (A-B)</b>		<b>(1,62,62,299)</b>	<b>2,76,45,425</b>
Depreciation	2	1,90,35,514	19,45,285
Transfer of Depreciation to Fixed Assets Fund Account		(9,597)	(15,806)
Transfer of Depreciation to Building Fund Account		(1,76,15,194)	-
Loss on Sale of Fixed Assets		(21,115)	1,329
<b>Surplus/(Deficit) before Tax</b>		<b>12,360</b>	<b>2,56,110</b>
TDS Paid on Demand		(1,76,64,267)	2,54,58,507
<b>Surplus/(Deficit) before appropriation</b>		<b>5,00,000</b>	<b>5,00,000</b>
Appropriated to RBI Chair Endowment Fund		(1,81,64,267)	2,49,58,507
<b>Surplus/(Deficit) after appropriation</b>		<b>14,12,51,901</b>	<b>17,45,04,651</b>
<b>TOTAL</b>		<b>14,12,51,901</b>	<b>17,45,04,651</b>
Significant Accounting Policies and Notes to Accounts (Schedule 7)			
In terms of our separate report of even date			
FOR V SAHAI TRIPATHI & CO			
CHARTERED ACCOUNTANTS			
Firm Reg. No. - 000262N			
   			
Manish Mohan (Partner) M. No. 091607	Rajeev Kapil (Secretary)	Rajat Kathuria (Director & CE)	Isher Judge Ahluwalia (Chairperson)
Place: New Delhi			
Date: 08 <sup>th</sup> September, 2018			

Indian Council for Research on International Economic Relations		
FY 2017-18		
Schedule 1		
Current Liabilities & Provisions:		
Particulars	As at 31 March 2018 (₹)	As at 31 March 2017 (₹)
<b>A) Current Liabilities:-</b>	<b>1,04,53,073.00</b>	<b>1,44,63,583</b>
-Sundry Creditors	42,65,488.00	64,96,973
-Statutory Dues	20,39,747.00	30,55,002
-Retention Money - Builder	41,47,838.00	49,11,608
<b>B) Provisions:-</b>	<b>1,39,82,059</b>	<b>82,99,602</b>
-Expenses Payable	20,72,830	36,05,470
-Provision for Gratuity (liability (Net)) (As per Schedule 1A)	1,19,09,229	46,94,132
<b>C) Grants Received in Advance:</b>	<b>38,45,933</b>	<b>72,81,119</b>
<b>Total</b>	<b>2,82,81,065</b>	<b>3,00,44,304</b>

## Schedule 1A

## Provision for Gratuity [liability (Net)]

Particulars	As at 31 March 2018 (₹)	As at 31 March 2017 (₹)
Present value of obligations at the end of the period (as per Actuarial valuation)	1,80,11,893	82,45,992
Less : LIC Fund for Gratuity A/c	61,02,664	35,51,860
<b>Net Unfunded Gratuity obligations</b>	<b>1,19,09,229</b>	<b>46,94,132</b>

\* Refer Schedule 7 Notes to Accounts Part B (5) : Provision for Employee Benefits

\* Actuarial valuation has been carried out for the first time in FY 2017-18 through a certified Actuary. Till last year, provision for Gratuity has been made as per LIC calculation.





**Indian Council for Research on International Economic Relations**  
**Details of Fixed Assets (FY 2017-18)**

Own Assets:										Schedule (C)	
Particulars	Rate of Depreciation (%)	Gross Block					Depreciation			Net Block	
		As at 01.04.2017 Own	Additions		As at 31.03.2018	Sales/ Written Off	As at 01.04.2017	For the Year Own	Upto 31.03.2018	As at 31.03.2018	As at 31.03.2017
			More than 180 days	Less than 180 days							
Air Conditioners Building (IHC)	15%	37,620	-	-	-	37,620	-	5,220	8,042	29,578	34,798
Car	10%	2,21,86,295	-	-	-	2,21,86,295	-	4,13,415	1,84,65,563	37,20,732	41,34,147
Computers	15%	9,39,111	-	-	-	9,39,111	-	94,143	4,05,634	5,33,477	6,27,620
Electrical Fittings	40%	95,90,320	2,17,491	2,40,289	-	98,32,100	2,16,000	3,53,131	91,79,258	5,51,078	5,51,078
EPABX	10%	10,63,525	-	-	-	10,63,525	-	29,144	8,01,234	2,62,291	2,91,435
Fax	15%	1,05,820	-	-	-	1,05,820	-	2,730	90,351	15,469	18,199
Cell Phone	15%	1,60,210	-	-	-	1,60,210	-	930	1,54,940	5,270	6,200
Furniture & Fixtures	15%	4,82,513	-	4,499	-	4,87,012	-	39,350	2,61,781	2,25,231	2,60,082
Laser Printer	10%	1,29,99,730	3,500	-	-	1,30,03,230	-	3,85,447	95,34,209	34,69,021	38,50,968
Misc. Equipments	40%	10,71,324	-	-	-	10,71,324	-	23,888	10,35,491	35,833	59,721
Multimedia Presentation System	15%	2,88,431	2,00,950	6,500	-	4,95,881	-	47,759	2,21,998	2,73,883	1,14,192
Overhead Projector	15%	2,70,400	-	-	-	2,70,400	-	1,066	2,64,360	6,940	7,106
Refrigerator	15%	2,57,770	-	-	-	2,57,770	-	10,091	2,00,586	57,184	67,275
Scanner	15%	14,500	-	-	-	14,500	-	597	11,117	3,383	3,980
	40%	39,975	-	8,378	-	48,353	-	1,812	41,445	6,908	342
Total As at 31.3.2018		4,95,07,544	4,21,941	2,59,666	-	4,99,73,151	2,16,000	14,10,723	2,15,115	4,06,76,009	92,97,142
Total As at 31.3.2017		4,97,39,276	6,34,999	2,30,920	-	4,95,07,544	10,97,651	19,29,479	10,84,322	3,94,80,401	1,00,27,143
											1,11,04,031

**Funded Assets:**

Particulars	Rate of Depreciation (%)	Gross Block						Depreciation		Net Block	
		As at 01.04.2017	Additions		Sales/ Written Off	As at 31.03.2018	As at 01.04.2017	For the Year Own	Upto 31.03.2018	As at 31.03.2018	As at 31.03.2017
			More than 180 days	Less than 180 days							
Computers	40%	36,55,612	-	-	36,55,612	36,51,420	1,677	-	36,53,097	2,515	4,192
EPABX	15%	87,620	-	-	87,620	61,637	3,897	-	65,535	22,085	25,983
Laser Printer	40%	1,68,050	-	-	1,68,050	1,67,857	77	-	1,67,934	116	193
Overhead Projector	15%	88,718	-	-	88,718	62,412	3,946	-	66,358	22,360	26,306
Total*		40,00,000	-	-	40,00,000	39,43,326	9,597	-	39,52,924	47,076	56,674
Land	-	26,66,122	-	3,12,47,299	3,39,13,421	-	-	-	-	3,39,13,421	26,66,122
Building (Pushp Vihar)	10%	10,53,80,589	33,15,165	63,22,544	11,50,18,298	-	1,11,85,703	-	1,11,85,703	10,38,32,595	10,53,80,589
Air Conditioner	15%	24,44,594	18,96,518	2,25,428	45,66,540	-	6,68,074	-	6,68,074	38,98,466	24,44,594
Computers	40%	56,67,203	-	-	55,17,203	1,50,000	22,06,881	-	22,06,881	33,10,322	56,67,203
Lift	15%	29,89,773	1,57,543	-	31,47,316	-	4,72,097	-	4,72,097	26,75,219	29,89,773
Furniture & Fixture	10%	2,89,92,849	4,88,195	7,69,355	3,02,50,399	-	29,86,572	-	29,86,572	2,89,92,849	2,89,92,849
Overhead Projector	15%	2,61,000	-	-	2,61,000	-	39,150	-	39,150	2,21,850	2,61,000
Televisions	15%	3,78,111	-	-	3,78,111	-	56,717	-	56,717	3,21,394	3,78,111
Total**		14,87,80,241	58,57,421	3,85,64,626	19,30,52,288	1,50,000	1,76,15,194	-	1,76,15,194	17,54,37,094	14,87,80,241
Grand Total As at 31.3.2018		20,22,87,785	62,79,362	3,88,24,292	24,70,25,439	3,66,000	1,90,35,514	2,15,115	6,22,44,127	18,47,81,312	15,88,64,058
Total As at 31.3.2017		15,28,65,517	3,83,65,549	6,63,68,700	20,22,87,785	33,77,816	19,45,285	10,84,322	4,34,277	15,88,64,058	11,03,02,752

\* Against Capital Grant

\*\* Against Building Fund

Refer Schedule 7 Notes to Accounts Part B (4) : ICRIER Green Building

Indian Council for Research on International Economic Relations				
FY 2017 - 18				
				Schedule 3
Investments:				
Particulars	As at 31 March 2018		As at 31 March 2017	
	Cost Price (₹)	Market Price (₹)	Cost Price (₹)	Market Price (₹)
<b>Investments in Fixed Deposit with Banks:</b>	26,87,50,000	26,87,50,000	26,87,50,000	268750000
Bank of India	9,61,00,000	9,61,00,000	9,61,00,000	96100000
Canara Bank	6,29,00,000	6,29,00,000	6,29,00,000	62900000
IDBI Bank	25,00,000	25,00,000	25,00,000	2500000
IndusInd Bank	4,95,00,000	4,95,00,000	4,95,00,000	49500000
Kotak Mahindra Bank	5,77,50,000	5,77,50,000	5,77,50,000	57750000
<b>Investment in GOI Bonds</b>	3,39,80,000	3,39,80,000	3,34,80,000	33480000
<b>Investment in Mutual Funds:</b>	5,78,90,665	6,98,77,335	5,00,00,000	6,00,03,942
Birla Sunlife Dynamic Bond Fund -Ret-Grth (Current Year - 169540 units of Rs.10 each) (Previous Year - 195769 units of Rs.10 each)	43,30,103	50,83,234	50,00,000	5683938.73
Birla Sunlife Floating Rate Fund-LTP-Reg Growth (Current Year - 23629 units of Rs.10 each)	47,21,262	50,27,340		-
Birla Sunlife Frontline Equity Fund (Current Year - 15311 units of Rs.10 each) (Previous Year - 20955 units of Rs.10 each)	24,11,180	32,03,067	33,00,000	4046418.61
DSP BlackRock Focus 25 Fund - Growth (Current Year - 223589 units of Rs.10 each)	46,59,820	48,89,893		
Franklin India Corporate Bond Opp. - Debt Fund (Current Year - 556896 units of Rs.10 each) (Previous Year - 699408 units of Rs.10 each)	79,62,394	1,00,48,138	1,00,00,000	11683056.14
Franklin India Prima Plus - Growth (Current Year - 8642 units of Rs.10 each)	45,71,317	48,69,210		
Franklin India Ultra Short Bond Fund-Super IP Growth (Current Year - 208845 units of Rs.10 each)	46,78,343	50,23,376		
HDFC Equity Fund (Current Year - 5541 units of Rs.10 each) (Previous Year - 7576 units of Rs.10 each)	24,86,783	32,78,155	34,00,000	4119810.91
ICICI Prudential LTP - Growth (Current Year - 233945 units of Rs.10 each) (Previous Year - 288992 units of Rs.10 each)	40,47,605	50,74,438	50,00,000	5892870.56
IDFC - DBF - Reg - Growth (Current Year - 245204 units of Rs.10 each) (Previous Year - 284733 units of Rs.10 each)	43,05,868	50,61,295	50,00,000	5741103.52
Kotak Select Focus Fund (Current Year - 101412 units of Rs.10 each) (Previous Year - 150561 units of Rs.10 each)	22,22,751	32,26,224	33,00,000	4327429.52
SBI Blue Chip Fund - Growth (Current Year - 131959 units of Rs.10 each) (Previous Year - 186553 units of Rs.10 each)	35,36,785	49,11,885	50,00,000	6263002.75
UTI Dynamic Bond - Debt Fund (Current Year - 507789 units of Rs.10 each) (Previous Year - 638211 units of Rs.10 each)	79,56,454	1,01,81,080	1,00,00,000	12246311.14
<b>Total</b>	<b>36,06,20,665</b>	<b>37,26,07,335</b>	<b>35,22,30,000</b>	<b>36,22,33,942</b>



Indian Council for Research on International Economic Relations		
FY 2017-18		
Schedule 4		
Current Assets, Loans & Advances:		
Particulars	As at 31 March 2018 (₹)	As at 31 March 2017 (₹)
A) Current Assets	1,54,28,765	6,94,40,002
-Cash in Hand (As per Schedule 4A)	23,590	60,500
-Balances with Bank in Saving Account (As per Schedule 4B)	1,54,05,175	6,93,79,500
-Balances with Bank in US Dollar Account	-	-
B) Loans, Advances & Other Recoverables	1,23,53,203	1,08,10,261
- Advances Recoverable in Cash or in Kind	76,19,348	70,75,647
- Interest Accrued	45,29,844	30,79,831
- Other Recoverables	1,91,535	6,32,000
- Royalty Receivable	12,476	22,783
C) Grants Receivable	1,12,39,899	53,16,457
D) Prepaid Expenses	30,02,342	29,33,476
Total	4,20,24,210	8,85,00,195

#### Schedule 4A

##### Imprest:

Particulars	As at 31 March 2018 (₹)	As at 31 March 2017 (₹)
Petty Cash-Imprest	9,982	3,042
Petty Cash - Imprest (USD)	13608	57458
Total	23590	60500

#### Schedule 4B

##### Bank Accounts- INR:

Particulars	As at 31 March 2018 (₹)	As at 31 March 2017 (₹)
ICICI Bank Ltd A/c No: 000701062084	1,04,766	8,06,603
Kotak Mahindra Bank A/c No: 01720010028420	7,39,021	3,11,42,817
State Bank of India A/c No: 30614820322	96,354	18,235
Kotak Mahindra FCRA A/c - 9911779692	1,44,65,034	3,74,11,845
Total	1,54,05,175	6,93,79,500



Indian Council for Research on International Economic Relations	
FY 2017 - 18	
Schedule 5	
<b>Details of Grant Receivable as on 31.3.2018 :</b>	
Particulars	(₹)
Opening as on 1.4.2017	53,16,457
Less: Written off during the year	6,32,000
Less: Received during the year	53,16,457
Grant Receivable for previous F/Ys:	0
ADD: Grant Receivable for F/Y: 2017-2018	1,12,39,899
<b>Closing as on 31.3.2018</b>	<b>1,12,39,899</b>
<b>Working:</b>	
<b>Details of Grant Receivable as on 01.04.2017</b>	
Particulars	(₹)
Grant Receivable A/c - Amway	12,74,000
Grant Receivable - BHC	30,73,237
Grant Receivable - Facebook	9,69,220
<b>Total</b>	<b>53,16,457</b>
<b>Grant Received During the year out of PY receivable:</b>	
Particulars	(₹)
Grant Receivable A/c - Amway	12,74,000
Grant Receivable - BHC	30,73,237
Grant Receivable - Facebook	9,69,220
<b>Total</b>	<b>53,16,457</b>
<b>Grant Receivable as at 31.3.2018:</b>	
Particulars	(₹)
Grant Receivable A/c - DFID	41,75,000
Grant Receivable A/c - Oxfam	20,63,059
Grant Receivable A/c - WRI	38,07,597
Grant Receivable - PwC	11,94,243
<b>Total</b>	<b>1,12,39,899</b>
<b>Other Recoverables as at 31.3.2018:</b>	
Particulars	(₹)
Seminar Grant Receivable A/c - IMF	1,91,535
Grant Receivable -	0
<b>Total</b>	<b>1,91,535</b>
<b>Grant Received in Advance as at 31.03.2018:</b>	
Particulars	(₹)
Grant Received in Advance - Ford Fndn	23,70,933
Grant Received in Advance - MEITY	14,75,000
<b>Total</b>	<b>38,45,933</b>

## Schedule 6

**Other Income:**

Particulars	Current Year (₹)	Previous Year (₹)
Royalty	12,476	1,10,418.00
Interest on Income Tax Refund	-	2,19,051
Sundry balances Written back	6,36,233	2,04,859
Income Recognized on Discount GOI Invtt.	1,16,268	1,16,196
Misc. Receipts	4,71,294	1,62,597
Sale of Publication	-	2,756.00
<b>Total</b>	<b>12,36,271</b>	<b>8,15,877</b>



**Indian Council for Research on International Economic Relations  
For the Year Ended March 31, 2018**

**SCHEDULE 7: SIGNIFICANT ACCOUNTING POLICIES AND NOTES TO ACCOUNTS**

**(A) Accounting Policies:**

**1. Basis of Preparation of Financial Statements:**

The financial statements of ICRIER have been prepared under the historical cost convention, on the accrual basis of accounting, in accordance with Generally Accepted Accounting Principles ("GAAP") in India. The financial statements are prepared to comply, in all material respects, with all the applicable accounting principles in India. The management evaluates all recently issued or revised Accounting Standards on an ongoing basis.

**2. Use of Estimates:**

The preparation of the financial statements in conformity with GAAP requires that the management makes estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent liabilities as at the date of the financial statements and the reported amounts of income and expenses during the reported period. Examples of such estimates include future obligations under employee benefit plans, the useful lives of fixed assets etc. Contingencies are recorded when it is probable that a liability will be incurred, and the amount can be reliably estimated. When no reliable estimate can be made, a disclosure is made as contingent liability. Actual results could differ from those estimates.

**3. Depreciation/ Amortization:**

ICRIER follows the written down value method for providing depreciation at rates provided in the Income Tax Act, 1961 except for assets below Rs. 5,000 which are fully depreciated in the year of purchase.

Depreciation on additions to assets which are put to use for a period of more than one hundred and eighty days is provided for the full year and on additions made and put to use for less than one hundred and eighty days, fifty percent of the prescribed depreciation rate is provided. No depreciation is provided on assets sold/disposed off during the year.

**4. Income Recognition:**

- a) Grants are accounted for when there is reasonable certainty of their ultimate collection. The accounting policy is based on prudence and certainty.
- b) Interest accrued on fixed/term deposits is treated as income under revenue accounts of the year in which it is accrued using the time proportion method, based on underlying interest rates on accrual basis.



5. **Fund Accounting:**

- a) Donations received towards the corpus are carried forward in the Balance Sheet under Endowment Fund. Interest earned thereupon is used as per the terms or conditions imposed by Donor.
- b) Funds received for creation of chair/ professorship are kept intact and interest earned thereupon is used as per the terms or conditions imposed by Donor.

6. **Fixed Assets:**

- a) Fixed assets purchased from own funds are stated at cost including taxes, duties, freight and other incidental expenses and taxes incurred in relation to acquisition and installation of the same.
- b) Fixed assets purchased out of specific funds received from grantor(s) or donor(s), have also been capitalized and the depreciation on same has been computed as per the policy of ICRIER. The depreciation charged on such Fixed Assets has been reduced from the corresponding respective fund balance.
- c) Incidental expenditure during construction period incurred up to the date of commissioning is capitalized. Cost of acquisition/construction is inclusive of freight, taxes & other incidental expenses.
- d) The construction of Building was completed by the end of 31 March 2017. During the financial year 2017-18, expenses incurred on its upkeep and maintenance are recognized as revenue expenditure.
- e) Expenditure on books and publications is charged to the Income and Expenditure account but a separate record of items purchased is maintained.

7. **Investments:**

- a) Investment for fixed period is shown as long term investment at their cost. Provision for diminution in the value is made only if in the opinion of the management the fall in value is of a permanent nature.
- b) The discount received or premium paid at the time of making the investment will be amortized over the period of maturity of the investment by crediting and debiting the income and expenditure accordingly.

8. **Employee Benefits:**

- a) **Short-Term Employee Benefits:**  
Short-term employee benefits including salaries, social security contributions and non-monetary benefits (such as medical care) for current employees are estimated and measured on an undiscounted basis.



b) **Defined Benefit Plan:**

The employee's gratuity scheme is the Company's defined benefit plan. The Gratuity liability payable under the payment of Gratuity Act, 1972, provides a lump sum payment to vested employees at retirement, death, incapacitation or termination of employment, of an amount based on the respective employee salary and tenure of employment. The liability to pay arises once an employee completes five years of tenure of service in an organization. It is paid/payable to employee at the time of retirement or on resignation, or on death to his dependents. Company accrued liability towards contribution to gratuity on the basis of valuation conducted by Actuary.

ICRIER has voluntarily applied Accounting Standard-15 on Employee Benefits which mandates that wherever applicable, the present value of the obligation under such defined benefit plans is to be determined based on actuarial valuation using the Projected Unit Credit Method, which recognizes each period of service as giving rise to additional unit of employee benefit entitlement and measures each unit separately to build up the final obligation. Actuarial gains and losses are to be recognized immediately in the Profit & Loss Account. Gains or losses on the curtailment or settlement of any defined benefit plan are recognized when the curtailment or settlement occurs. Past service cost is to be recognized as an expense on a straight-line basis over the average period until the benefits become vested.

Actuarial Valuation has been done in respect of Gratuity for the first time during the FY 2017-18. The Company has recognized the provisions in respect of gratuity on the basis of Actuarial Valuation.

c) **Earned leaves:**

Encashment of earned leave salary is accounted for on the basis of actual payment to the employees at the time of retirement/leaving.

9. **Fixed Deposits with Bank Categorized as Investments:**

- a) Investments have been made in Fixed Deposits in Scheduled Banks in compliance with Section 11(5) of the Income Tax Act, 1961.
- b) Funds received from Funding Agencies/ Donor(s) and the remaining unutilized, have been categorized under Cash & Cash Equivalents.

10. **Basis of Accounting:**

All Income & Expenses in the annual accounts are for "on-going" operations of ICRIER. All recognized gains and losses are accounted as per accrual basis of accounting.



**11. Grant Accounting:**

- a) Grants are accounted for as income when there is reasonable certainty i.e. either grant has been received and realized or sanction orders have been received. Unless there is reasonable certainty regarding their ultimate collection, grants are not recorded.
- b) In cases where projects for which the grants were received have not been completed, the unspent grants are estimated and are carried forward as a liability. In subsequent years unspent grants are transferred to the Income and Expenditure Account to match them with related costs which they were intended to cover.

**12. Provisions and Contingencies:**

A Provision is recognized when there is a present obligation as a result of an obligating event that probably requires an outflow of resources and a reliable estimate can be made of the amount of the obligation. A disclosure for a contingent liability is made where there is a possible obligation that may, but probably will not, require an outflow of resources or where there is a possible obligation or a present obligations in respect of which the likelihood of outflow of resources is remote, no provision or disclosure is made.

Contingent Liabilities are disclosed after an evaluation of the facts and legal aspects of the matters involved. Contingent Assets are neither recognized, nor disclosed. Provisions, Contingent Liabilities and Contingent Assets are reviewed at each Balance Sheet.



**(B) Notes to Accounts:**

**1. Current Assets, Loans and Advances:**

In the opinion of ICRIER, the current assets, loans and advances of ICRIER have a realizable value to the extent shown in the accounts and the provision for all known liabilities including depreciation are adequate.

**2. Taxation:**

The Director General of Income Tax (Exemptions) has with effect from the financial year 2006-07 and onwards granted us exemption from income tax under sub-clause (iv) of section 10 (23C) subject to our fulfilling certain conditions including application of 85% of our income during the year and investment of our surplus funds in specified investments. Therefore, no provision for income tax is made. Assessment of ICRIER up to the AY-2015-16 has been completed with Nil demand on ICRIER. The assessment for the AY 2016 -17 is underway.

**3. Depreciation on Funded Assets:**

During the year ended 31<sup>st</sup> March, 2018, depreciation has been charged on funded assets with effect from date of purchase of such assets. The accumulated depreciation has been netted from the Gross Value of Fixed Assets. The corresponding depreciation on same has been shown separately under Schedule-2 on fixed assets and such amount of depreciation is deducted from Fixed Assets Fund appearing in the Balance Sheet.

The construction of Green building was completed on 31 March 2017. Consequently, during the FY 2017-18, depreciation has been charged on the capitalized value of fixed assets with effect from 1<sup>st</sup> April 2017. The accumulated depreciation has been netted from the Gross Value of Fixed Assets. The corresponding depreciation on same has been shown separately under Schedule-2 on Fixed assets and such amount of depreciation is deducted from Building Fund appearing in the Balance Sheet.

**4. ICRIER Green Building:**

ICRIER's new building in Pushp Vihar is ready and operational. The management is awaiting Occupancy Certificate from SDMC. The management is in the process of complying with their requirements for issuance of Occupancy Certificate.

**5. Provisions for Employee Benefits:**

**Provision for Gratuity**

Actuarial Valuation has been done in respect of Gratuity for the first time during the FY 2017-18. The Company has recognized the provisions in respect of gratuity on the basis of Actuarial Valuation.

(Amount in Rupees)

Particulars	2017-18	2016-17
<b>Amount recognized in Balance Sheet</b>		
Present value of obligations as at the end of the period	1,80,11,893	-
Fair value of plan assets	61,02,665	-
Present value of unfunded obligations	1,19,09,228	-
Unrecognized past service cost	-	-
<b>Net Liability/(Assets)</b>	<b>1,19,09,228</b>	<b>-</b>
<b>Amount in Balance Sheet</b>		



Liability	1,80,11,893	-
Assets	61,02,665	-
<b>+Net Liability/(Assets)</b>	<b>1,19,09,228</b>	<b>-</b>
<b>Expenses recognized in the Statement of Profit &amp; Loss</b>		<b>-</b>
Current service cost	-	-
Interest on defined benefit obligation	3,68,247	-
Expected return on plan assets	-	-
Net actuarial losses/(gain) recognized in the year	-	-
Past service cost	-	-
Losses/(gains) on "Curtailments and Settlements"	-	-
<b>Total, included in "Employee Benefit Expense"</b>	<b>-</b>	<b>-</b>
Actual return on plan assets	-	-
<b>Reconciliation of benefit obligations and plan assets for the period</b>	<b>-</b>	<b>-</b>
<b>Change in defined benefit obligation</b>	<b>-</b>	<b>-</b>
<b>Opening defined benefit obligation</b>	<b>-</b>	<b>-</b>
Current service cost	-	-
Interest cost	-	-
Actuarial losses/(gains)	-	-
Liabilities extinguished on curtailments	-	-
Liabilities extinguished on settlements	-	-
Liabilities assumed on acquisition	-	-
Exchange difference on foreign plans	-	-
Benefits paid	-	-
<b>Closing defined benefit obligation</b>	<b>-</b>	<b>-</b>
<b>Change in fair value of assets</b>	<b>-</b>	<b>-</b>
<b>Opening fair value of plan assets</b>	<b>-</b>	<b>-</b>
Expected return on plan assets	-	-
Actuarial gain/(Losses)	-	-
Assets distributed on settlements	-	-
Contributions by employer	-	-
Assets acquired due to acquisition	-	-
Exchange difference on foreign plans	-	-
Benefits paid	-	-
<b>Closing fair value of plan assets</b>	<b>-</b>	<b>-</b>
<b>Assets information</b>		
<b>Category of assets</b>		
Government of India Securities	-	-
Corporate Bonds	-	-
Others	-	-
<b>Grand Total</b>	<b>-</b>	<b>-</b>
<b>Summary of the actuarial assumptions</b>		<b>-</b>
Discount rate	7.75%	-
Interest Rate	-	-
Expected rate of return on assets	7.75%	-
Future salary increases	10%	-
Attrition Rate	-	-
Retirement Age	60	-



\* These figures appearing above pertains to gratuity liability reported during the financial ended 31<sup>st</sup> March, 2018, does not match with the figures reported in the financials as figures mentioned in the aforesaid notes are as per actuarial valuation which is conducted by actuary in current financial year ended 31<sup>st</sup> March, 2018 for the 1<sup>st</sup> time. Till 31<sup>st</sup> March, 2017, the liability has been determined as per the calculation made by LIC. The corresponding differential impact has been considered in the financials and the Fair value of Plan Assets as at 31<sup>st</sup> March, 2018 and the closing balance of liability as at 31<sup>st</sup> March, 2018 matches with figures reported in the financials.

6. **Contingent liability:**  
Contingent liability on account of a labour dispute awaiting settlement in the Hon'ble Delhi High Court is estimated at Rs.10,00,000.
7. **Plough Back to Endowment Fund:**  
During the year ended March 31, 2018, Rs. 5,00,000 has been appropriated to the Endowment Fund from the Income & Expenditure account which on account of Income from Investment made, as per the terms and conditions of RBI- Chair Fund Endowment Grant.
8. **Related Party Transaction:**  
During the FY 2017-18, the Director General of ICRIER has been paid Rs.54,19,980/- (Rs. 53,52,968 for FY 2016-17) as gross remuneration for whole time employment.
9. **Comparative Figures:**  
Previous year's figures have been re-grouped or re-arranged wherever necessary.
10. **Round Off:**  
The Figures in the Income & Expenditure Account and Balance Sheet are rounded off to the nearest rupee.
11. **Schedules:**  
Financial Statements consist of Balance-sheet and Income & Expenditure along-with annexed Schedules, significant accounting policies and notes to accounts. **Schedules 1 to 7** form an integral part of the Balance Sheet and Income & Expenditure Account.

As per our report of even date  
Attached to the balance sheet  
For & on behalf of  
V Sahai Tripathi & Co  
Chartered Accountants  
Firm Reg. No.-000262N

On behalf of the Board

MANISH MOHAN  
PARTNER  
(M.N.-91607)

Place: New Delhi  
Date: 08<sup>th</sup> September, 2018

RAJEEV KAPIL  
SECRETARY

RAJAT KATHURIA  
DIRECTOR & CE

ISHER JUDGE AHLUWALIA  
CHAIRPERSON



## ICRIER Donors

ICRIER cherishes its status as the country's premier autonomous and independent economic policy think-tank. It has been able to nurture its treasured autonomy by establishing an Endowment Fund, the income from which helps to meet administration expenses and support research on important topics where project grant is not immediately available. Income from the endowment fund has also helped to enhance ICRIER's research capacity and networking.

We appreciate the generosity of our donors and assure them that ICRIER will continue to strive to maintain its focus on policy-oriented research and achieve international standards in the quality of its research output. Prominent corporate donors to ICRIER's Endowment and Building Fund include:

- Abhishek Industries
- American Express Foundation
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## About ICRIER

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ICRIER, one of India's leading think tanks, was established in August 1981 as a not-for-profit research organisation to provide a strong economic basis for policy making. Under the current Chairperson, Dr. Isher Judge Ahluwalia, ICRIER has continued and reinforced the pursuit of its original vision and in the process significantly expanded the scope of its research activities.

ICRIER is ably supported by a Board of Governors, which includes leading policy makers, academicians, opinion makers and well-known representatives of the corporate world.

ICRIER's success lies in the quality of its human capital. Led by Dr. Rajat Kathuria, Director & Chief Executive, ICRIER's research team consists of highly qualified professors, senior fellows, fellows, research associates and assistants and consultants.

ICRIER conducts thematic research in the following eight thrust areas:

1. Macroeconomic Management, Financial Liberalisation and Regulation
2. Global Competitiveness of the Indian Economy – Agriculture, Manufacturing and Services
3. Challenges and Opportunities of Urbanisation
4. Climate Change and Sustainable Development
5. Physical and Social Infrastructure including Telecom, Transport, Energy and Health
6. Skill Development, Entrepreneurship and Jobs
7. Asian Economic Integration with focus on South Asia
8. Multilateral Trade Negotiations and FTAs

International conferences, seminars, public policy workshops, public lectures and publications form an integral part of ICRIER's outreach activities. ICRIER maintains a wide network of resource persons from India and abroad. It strives to attract well-qualified researchers, provides them a stimulating and scholarly work environment and encourages researchers to work in teams. ICRIER's research is widely cited by both academia and the popular press, and has over the years provided critical inputs for policy making.







**Indian Council for Research on  
International Economic Relations**

India Habitat Centre, Core-6A, 4<sup>th</sup> Floor,  
Lodhi Road, New Delhi-110003, India.

**Tel:** +91 11 43112400 | **Fax:** +91 11 24620180

**E-mail:** [info@icrier.res.in](mailto:info@icrier.res.in) | **Website:** [www.icrier.org](http://www.icrier.org)