



ANNUAL REPORT 2020

INDEPENDENCE.
INTEGRITY.
IMPACT.

OPYRIGHT @ CENTRE FOR SOCIAL AND ECONOMIC PROGRESS (CSEP) SEP RESEARCH FOUNDATION

PUBLISHED ON FEBRUARY 202

# TABLE OF CONTENTS

About us **05** 

Chairman's Message **06** 

President's Message **08** 

From
Brookings India
to CSEP
12

Growth,
Finance and
Development

14

Energy, Natural Resources and Sustainability

24

Foreign Policy and Security **34** 

Communications and Outreach

42

Flagship Seminar

43

Connecting Virtually **44** 

The Team

46

Board Members

48

Support for Impactful Research 49

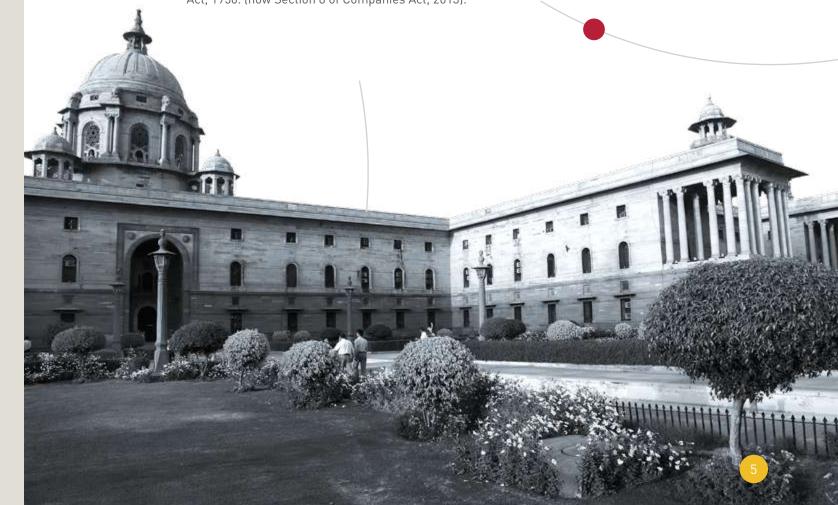
Founders Circle **50** 

Financials **52** 

# ABOUT US

The Centre for Social and Economic Progress (CSEP) conducts in-depth, policy-relevant research and provides evidence-based recommendations to the challenges facing India and the world. It draws on the expertise of its researchers, extensive interactions with policymakers as well as convening power to enhance the impact of research. Independence, integrity and impact are key values that guide all our work. CSEP as an institution espouses no views.

Our researchers work across domains including, but not limited to, Growth, Finance & Development; Energy, Natural Resources and Sustainability; and Foreign Policy and Security. All our research and policy recommendations are freely available to the public. CSEP is based in New Delhi and registered as a company limited by shares and not for profit, Section 25 of the Companies Act, 1956. (now Section 8 of Companies Act, 2013).



#### CHAIRMAN'S

MESSAGE

Vikram Singh Mehta
Chairman & Distinguished Fellow

2020 is the year that many of us will wish had never come to pass but which all of us will never forget. It has left an indelible mark on our lives. 2020 is also the year Brookings Institution India Center (BIIC) morphed into the CSEP Research Foundation. CSEP is the acronym for "Centre for Social and Economic Progress". This name change was accompanied by the reconstitution of the Board of Directors and the executive management.

CSEP was formally constituted on July 30, 2020, when the Ministry of Corporate Affairs approved the name change of Brookings Institution India Center to CSEP Research Foundation. The new Board of CSEP comprising Rahul Bajaj, Gaurav Dalmia, Adi Godrej, Vikram Kirloskar, Hari Bhartia, Rakesh Mohan and myself met virtually for the first meeting on September 24, 2020. Pallavi S. Shroff was formally inducted into the Board in early January 2021. The Board elected me as the Chairman of CSEP and Rakesh Mohan as its President. The Board also defined the mandate of CSEP. It was to be a public policy-oriented, research think tank focused on issues of public

importance to India. It would be independent and non-partisan. Its research would be grounded in empirical data and analytical rigour. It was not a lobby or advocacy group. All of its research and associated activities would be in the public domain. And its underlying objective would be to support the government and other decision-makers of public policy in the discharge of their responsibilities.

BIIC was built in 2013 on the back of the generosity of its Founders Circle, all of whom are considered as founder members of CSEP; its "friends" and the project-related funding provided by institutions. A similar funding model will underpin CSEP. It will draw on the support of individuals, corporates, multilaterals and foundations to finance its research program. In return for their support, it will commit to a research platform built on the pillars of Independence, Integrity and Impact.

A research think tank does not fit neatly into our policy ecosystem. It has no formal locus standi. Its endeavour

to impact policy depends entirely on the response of the authorities to the quality and relevance of its scholarship. Quality and relevance are two sides of the coin of impact. One without the other has no value, at least not in the eyes of the decision-maker. A solid piece of research but on a subject that is not of contemporary policy significance will gather dust. A scratchy piece of work on a subject of relevance will be dismissed. The balance between the two is not easy to strike but it has to be done.

The key factor for success for a think tank lies, therefore, in the quality of its faculty and its ability to combine scholarship with public policy insight and experience. It is in this context that I was delighted when Rakesh Mohan agreed to delay his plans for a leisured existence to take charge of CSEP as its President and Distinguished Fellow. Rakesh has a long and distinguished pedigree as an academic and public servant. I was also delighted to welcome Anoop Singh (until October 31, 2020, the member of the Finance Commission) and Montek Singh Ahluwalia as Distinguished Fellows and Laveesh Bhandari as a Senior Fellow. Together with Shivshankar Menon, who was earlier Distinguished Fellow at BIIC and the many excellent scholars that moved to CSEP from BIIC, I believe CSEP can justifiably claim to have struck just such a balance.

#### India's place in a changing world

The world is in a state of churn. Many of the assumptions that underpinned the post-World War 2 world order have been overturned. Multilateralism has given way to resurgent nationalism. The so-called "Washington consensus" of market liberalism has been somewhat discredited by the "Beijing Consensus" of a strong state. These trends were evident pre-COVID-19. COVID-19 has accelerated them and also introduced fresh uncertainties.

No one quite knows what the post-COVID world will look like. Will we see a return to business-as-usual or will we, with the benefit of hindsight, look back on 2020 as a hinge year when everything that was familiar qot

upended forever? These questions will be answered in time. But what can be said today is that the world ahead will be complex and uncertain. That there will be further disruptions and that the main challenge confronting governments and public policy practitioners will be to anticipate and prepare for the unexpected. India faces just such a conundrum. It confronts a difficult present and an uncertain future. Its leadership has to reinvigorate economic growth, alleviate poverty and manage national security; at the same time, it must put in place the systems and processes for weakening the link between energy demand and environmental pollution and humanise technology.

The challenges facing the world, and India in particular, are often beyond the reach of the gifted amateurs that man the levers of bureaucracy. They have need for expert advice. Our purpose at CSEP is to provide such a support. Our hope is that, through cutting-edge and quality scholarship, CSEP will be regarded by the government as a support and partner in its endeavour to secure sustainable progress.

"The main challenge confronting governments and public policy practitioners will be to anticipate and prepare for the unexpected."

#### PRESIDENT'S

MESSAGE

Rakesh Mohan
President & Distinguished Fellow

I write this with a measure of great excitement as well as some trepidation. It is a matter of considerable privilege and opportunity to be invited to head the Centre for Social and Economic Progress as it succeeds Brookings Institution India Center (BIIC). As the country faces new global and domestic challenges in almost every sphere, we hope that policymaking will benefit greatly from think tanks that generate knowledge-based policy prescriptions that arise from rigorous research as well as practical experience. That is the task before us as we build on our pedigree of seven years as BIIC.

We benefited greatly from the overall umbrella of The Brookings Institution, perhaps the most well-recognised global policy research institution. We've also benefited from the generosity of our Founders Circle members and funding from different foundations and other donors that has sustained the institution so far. We now have to chart out an independent path as we quickly go through

accelerated adolescence into adulthood as a credible and dependable policy research institution whose motto is Independence, Integrity, Impact.

How would we achieve this?

The key is to strengthen and expand a faculty of scholars who exhibit exceptional rigour and credibility. We are fortunate to have a group of globally recognised distinguished fellows who will provide guidance and thought leadership. Our research teams will be led by senior established research scholars and practitioners. The long-term sustainability of the institution will be ensured by the simultaneous induction of accomplished younger research scholars who have demonstrated degrees of excellence, and who can be expected to be our torchbearers in the future. And, finally, we will continue to host a flow of young budding researchers who will cut their professional teeth here as they acquire

a taste for policy-oriented research under the guidance of experienced mentors, before embarking on careers in both research and policy in the wider world. The byword in all we do must be excellence.

#### New challenges in a new world

India, and the world at large, have gone through great stress over the last decade, since the outbreak of the North Atlantic Financial Crisis (NAFC) in 2008-09. This stress has been all-encompassing, affecting the global economy, generating new political faultlines within countries, and giving rise to geopolitical tensions that have made global problem solving much more difficult. After a relatively successful growth experience for about two decades since the economic reforms in the early 1990s, Indian economic growth has palpably slowed over the last decade.

Just as the world was beginning to attain some normalcy, a decade after the NAFC, the outbreak of the COVID-19 pandemic has plunged the global community into an exceptional new crisis, whose nature and longer-term implications are still to be fully recognised. Certainly, India has been among the more affected countries.

What are the new challenges that the world and India now face?

It is imperative that we regenerate an accelerated and more inclusive economic growth path so that there is hope for the abolition of poverty in India in the foreseeable future. The growth achieved in the first decade of the century must be rekindled, albeit in the context of a more fractious global trade and economy. To achieve sustained economic growth, a host of challenges need to be tackled simultaneously.

Among the key issues facing the country are the linked problems of fiscal and financial sector stability that have grown in recent years. The economic impact of the COVID-19 pandemic has intensified the existing stress. Sustained economic growth will not be feasible without adequate repair of the pillars of fiscal management at both the central and state levels. Similarly, the financial sector has been handicapped by rising, and unresolved, non-performing assets. The fiscal and financial sector issues are linked: hence we are launching significant research programmes in both areas that will include examining how the regulatory framework needs to be brought up to best practice international standards consistent with productive growth.

Unlike the past when the Centre played a key role in kick-starting reforms, going forward, the Centre and the States have to shoulder this responsibility together. CSEP is launching an initiative on 'sub-national economic reforms' to support the state and city governments in identifying and pushing reforms. It is widely recognised that India takes its own time in formulating and implementing reforms. One big part of this initiative is to compare and contrast India's political economy of reforms compared to its peer countries and also across its different states and cities.

### Building a competitive, sustainable Indian economy

There is an ongoing energy transition globally from fossil fuels to renewable energy, and India remains at the centre of global attention. Previous models of energy generation, transmission and distribution are undergoing much more rapid change than had been envisaged. CSEP has had an intense program of research in this area of energy, natural resources and sustainability. We have addressed the issues of coal and gas comprehensively, culminating in two book-length publications. We are currently engaged in addressing issues related to the financial, social, and environmental sustainability of the existing power sector in India. We will strengthen our work in this area and provide timely policy directions based on our research.

#### PRESIDENT'S MESSAGE

Climate change is a challenge that the world is facing on a collective basis. The possibility of a more cooperative multilateral approach has now risen with a new us President who has already declared his intention to pursue policies that address this crucial issue. CSEP has decided to go beyond its work in energy towards an in-depth research program on climate change issues. Our objective is to help facilitate a cooperative global environment agenda through research that brings out the challenges and solutions for countries that have to balance objectives of economic growth, poverty reduction and sustainability. Therefore, our work will not only fill the long-standing gaps in this space but also catalyse greater research elsewhere.

The slowdown in economic growth over the last decade has mirrored the difficulties faced by Indian manufacturing in the face of increased global competition. Thus, industrial growth and goods exports have stagnated after having achieved record growth in the previous decade. Economies of scale are necessary for firm competitiveness. India has a long way to go in this since it has a preponderance of low productivity tiny manufacturing firms, in contrast to other Asian countries. Robust manufacturing growth is not feasible without the emergence of good-sized high productivity firms that are competitive in global markets, who can then reignite export growth. They are also essential for efficient import-substituting growth in the domestic economy. The stagnation in industrial growth and manufacturing exports has also slowed overall employment growth. Utilising the demographic dividend that the country still enjoys over the next couple of decades requires building robust labour using manufacturing and corresponding labour skilling and redeployment. CSEP, therefore, plans to initiate a research program covering these key issues in manufacturing, trade, and employment generation.

Among the ingredients that are necessary for making the Indian economy competitive are the availability of infrastructure that promotes efficient logistics, and cities that are livable, well-governed and hospitable for the promotion and growth of economic activities. CSEP plans to identify specific areas for research in these domains that may be helpful in providing practical and useful policy directions, while giving appropriate attention to the fiscal and financial constraints, among others, that affect performance.

A comparative review of the growth record of India within the context of Southeast and East Asia suggests that a primary policy failing has been inadequate outcomes in health and education, which have kept our human capital well behind the levels achieved in these countries. It is critically important that new policy directions are explored at the current time. Our view is that accelerated investment, delivery, and outcomes of health and education at all levels are key to addressing regional inequities and rebuilding sustained economic growth and employment. CSEP has already done considerable work on these subjects in the past few years and now contemplates new initiatives in these crucial areas.

#### India's regional and global interests

The 2020 pandemic has accelerated several global trends, including an overall intensification of tensions in the global geopolitical sphere, the erosion of multilateralism, and an economic slowdown coupled with rising inequalities and the emergence of protectionist sentiment and policies. These pose significant challenges for India to pursue its regional and global interests while it seeks to expand its overall international influence. CSEP's foreign policy and security programme has increasingly concentrated its attention on the immediate South Asia

neighbourhood, giving particular attention to subregional connectivity in one of the world's least integrated regions. Under the Sambandh Initiative, our research will continue to focus on how India can correct the various economic, infrastructural and other connectivity gaps with its neighbours in the subcontinent and the Indian Ocean region.

In recognition of the rising economic and strategic profile of Asia, India had initiated a "Look East" policy as early as 1991, which has since been followed by all successive governments. It was strengthened in 2014 by transforming it into an "Act East" policy. With the continuing rise of China in all spheres, economic, technological, and strategic, and the impressive progress of ASEAN and other Asian countries over the last few decades, India must further enhance its economic linkages to this region.

There is a need for a more research-based understanding of the region to assist our foreign policy efforts in this direction. While continuing its special focus on our immediate neighbourhood, CSEP expects to expand its foreign policy programme to encompass Asia as a whole. This constitutes an ambitious policy research programme, but one that is essential to pursue in the national interest.

My earnest hope is that we will be able to demonstrate our resolve to accomplish such an ambitious agenda in the years to come. All our efforts will be based on our core values of independence and integrity so that we can have demonstrable impact.

"It is imperative that we regenerate an accelerated and more inclusive economic growth path so that there is hope for the abolition of poverty in India in the foreseeable future."

# FROM BROOKINGS INDIA TO CSEP

#### **BUILDING CSEP**

CSEP started in 2013 as the Brookings Institution India Center (BIIC), an overseas centre of The Brookings Institution, one of the world's oldest and premier think tanks. After seven years of a fruitful partnership, the two institutions formally separated as of September 10, 2020, and the Centre for Social and Economic Progress (CSEP) was born. CSEP seeks to carry forward the legacy of BIIC and build upon it by further expanding the research agenda and sharpening the policy insights. CSEP inherits BIIC personnel, values and funding structures.

Our collective vision is to build a **centre of excellence,** known for credible, rigorous research.

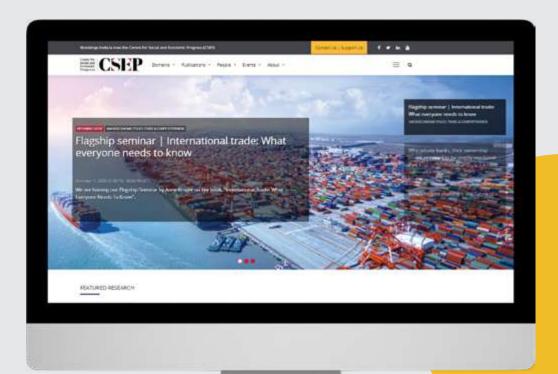
Our work in areas such as health, education, property rights, energy, and climate change aims to strengthen **social progress** in the country.

Our research furthers the agenda of **economic progress** through work on economic reforms, financial sector stability, investment, trade and manufacturing.

Our research is **progress-oriented**, with the goal of advancing India on the path of sustainable growth and cementing its position in global and regional geopolitics.

#### A NEW IDENTITY

As part of the institutional transition from Brookings India to CSEP, we undertook one of our mostsignificant projects yet: a complete brand overhaul. From the start, we were clear that brand CSEP should be associated with academic rigour, new ideas and, of course, progress. We translated this vision into a striking brand identity. The bold letters, classic colour theme and the four arrows combine to create a powerful first introduction for CSEP. The arrows reflect an understanding of progress as advancement in all directions, in different areas, and through many approaches. The tagline Independence, Integrity, Impact reiterates our commitment to the values we have inherited through our association with the Brookings Institution.



#### A DIGITAL PRESENCE

Advances in technology and increased access to the internet have made online research more viable globally. As a think tank involved in policymaking, one of our priorities is to make our research easily accessible.

Our new website focused on not just visual appeal but also ease of use, especially for mobile users. Our content was re-classified to be more easily navigable and searchable, and we also began our journey in making our work more visual and interactive. This includes a new standard of making all reports accessible directly on the web, embedding interactive graphics and ensuring compatibility across devices.

One of the other significant challenges was successfully migrating all the work that we did as Brookings India. A combination of these rigorous efforts and the implementation of branding guidelines on our website has provided us with an ideal platform to showcaseour research.





# THIRD-GENERATION ECONOMIC REFORMS

While India has come a long way in achieving a higher level of well-being since independence, it still lags behind most of its peers in East Asia. In following India's development journey, one can identify two major policy departures in the approach to growth and development from previous long epochs.

The first generation of economic reforms took place soon after independence, and introduced a comprehensive approach to growth and development through planning and import substitution. Indian growth witnessed a notable acceleration from the early 1950s to the mid-1960s, but it was followed by policy sclerosis resulting in a downturn till the late 1970s. The much-delayed second generation of economic reforms finally began in 1991. Fuelled by higher savings and investment, the economy ascended to a higher growth path of around 7 percent annual GDP growth over the next two decades. But, once again, the development engine started sputtering from the early 2010s.

The Indian economy is in trouble once again and hence needs a major reboot. There has been an inadequate generation of quality employment for the increasing Indian labour force. What is needed now is a special thrust to promote employment-intensive, export-oriented manufacturing, which will need continued openness and not increased protection.

In a new Working Paper, Rakesh Mohan argues that the time is now right for India to initiate the third generation of economic reforms to elevate its growth trajectory to the next level of around 8-9 percent. India's economic strategy going forward once again needs emphasis on economic growth over other objectives, with special focus on health and education. Thus, the next generation of economic reforms needs a special resolve to deliver efficient public services, particularly focused on the long-neglected social needs related to nutrition and health services, primary and secondary schooling, a major quality upgrade of tertiary education, water supply and sanitation, and urban development.





#### SUB-NATIONAL ECONOMIC REFORMS

COVID-19 induced economic stress is likely to result in Indian economy contracting between 5-10 percent during 2020-21. This event struck at a time when the economic engine was already decelerating. There is a clear and present imperative to accelerate economic growth to create gainful employment for our young and expanding labour force, alleviate extreme poverty, and improve delivery of key services like education, health, sanitation, etc.

Tackling these challenges will require the centre and state governments to join forces. While a lot of external support exists for the central government from think tanks, multilateral agencies, among others, the same is not true for state governments. Furthermore, state governments are at very different levels of income and development, requiring varying degrees of support and guidance. For example, NCT of Delhi, with its per capita GDP of ~US\$4,500, is similar to a middle-income country, while Bihar at US\$500 is comparable to one of the world's poorest economies.

CSEP has launched an ambitious initiative on 'Sub-National Economic Reforms' to support state and city governments in pushing the needle on economic reforms. To begin with, the initiative will endeavour to answer fundamental questions:

- How much of state growth is driven by endowments, central government funding and policies, impact of global economy; and how much is due to its own policies?
- Are there multiple growth models, or does one size fit all?
- What is the political economy of economic reforms?

We aim to find answers to these questions while working directly with key stakeholders like state/municipal governments, academics, policymakers, other think tanks, so that there is a sense of ownership, increasing the likelihood of reform happening on the ground.



# FINANCIAL GROWTH AND STABILITY FRAMEWORK

The aim of 'Financial Growth and Stability Framework' will be to ignite debate, discussion and action to transform India's financial sector as an engine of growth. A number of tectonic shifts have taken place over the last year or so – a steep rise in non-performing assets (NPAs), likely additional burden due to COVID-19 related bankruptcies, and promise of better and more efficient

financial intermediation due to digital disruptions like the availability of the GSTN (Goods and Services Tax Network) data. These shifts have pointed to the need for creating such a framework to push debate and policy in the right direction. The key areas of enquiry will be financial intermediation, the role of the public sector, financial stability, and fintech.



#### **PUBLIC FINANCE**

The strains on public finances, especially for subnational governments, have intensified as a result of the COVID-19 crisis, with likely greater implications for India and other emerging markets. For India to achieve its full potential for economic growth and development over the medium term, its public finances will need to rebuild the revenue base, improve the quality and efficiency of public spending and financial management across all levels of government, and establish the pillars for sustainable public debt.

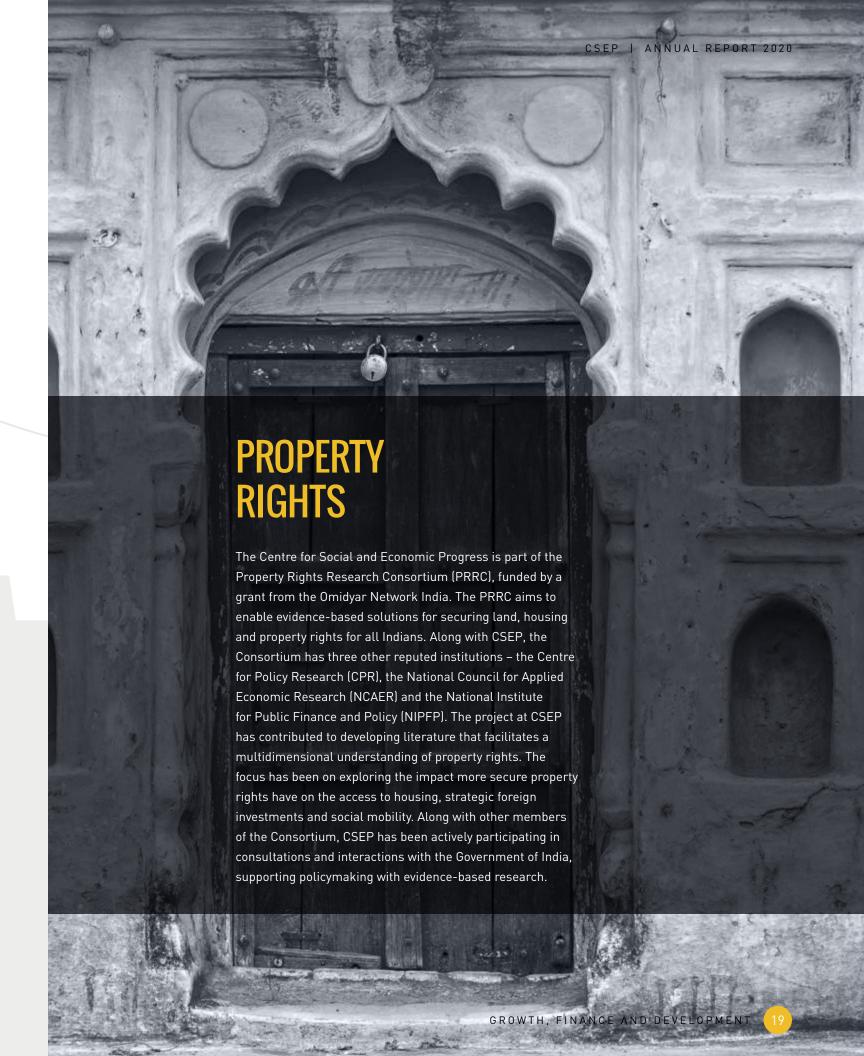
CSEP intends to develop an independent research and assessment mechanism that will examine elements of the public finance framework.



# STUDYING THE NON-PROFIT SECTOR

The civil society/non-profit organisation (CSO/NPO) sector in India has undergone major changes during the last decade, and more so over the last five years. Some of these changes have happened as a consequence of broader social-political-economic shifts. Others have been triggered by the entry of corporates in the development space after the Indian government introduced Section 135 in the Companies Act, mandating that companies must spend 2% of their average net profits made during the three immediately preceding fiscal years on Corporate Social Responsibility (CSR) activities. The amendment, passed in 2013, brought together for-profit and not-for-profit organisations that

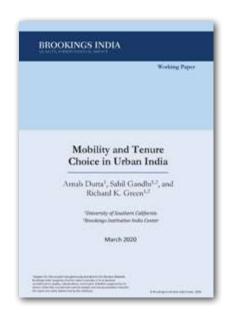
were traditionally not used to working together. Within this context, conversations around measurement of impact, funding models and governance have taken on a new dimension. A new study from the Centre for Social and Economic Progress attempts to explore these shifts and understand how these two vastly different sectors are trying to find a unique synergy to work together. Through in-depth interviews of sector leaders and a survey of over 10,000 organisations, our study attempts to make a thorough assessment of these shifts, identify the best practices and offer a framework for understanding impact and good governance.





### PROPERTY RIGHTS & ACCESS TO HOUSING

As India rapidly urbanises, the demand for housing is accelerating. The complex regime of contract enforcement and property rights legislation in India creates distortions, resulting in a shortage of accessible, affordable housing in the cities. In March 2020, a research paper "Mobility and Tenure Choice in India" by Arnab Dutta, Sahil Gandhi and Richard K. Green examined the paradox of Indian internal migration and highlighted the interaction between internal migration and the choice to rent or buy property. In April 2020, Shaonlee Patranabis, Sahil Gandhi and Vaidehi Tandel published an article, "Are slums more vulnerable to the COVID-19 pandemic: Evidence from Mumbai," which highlighted the greater incidence of COVID-19 within slums in Mumbai.



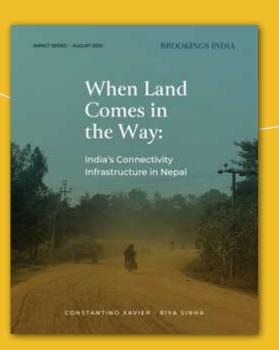


India has 12.38% of its urban housing stock vacant. In this important new paper on 'India's Housing Vacancy Paradox: How Rent Control and Weak Contract Enforcement Produce Unoccupied Units and a Housing Shortage at the same time', the authors look at three possible explanations for vacancy rates: pro-tenant rent control laws, effectiveness in contract enforcement and under-provision of public goods and amenities. The paper finds that pro-tenant laws are positively related to vacancy rates. Poor contract enforcement, measured by number of judges normalised by population, emerges as another limiting factor.



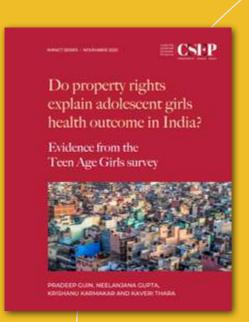
# PROPERTY RIGHTS AND STRATEGIC FOREIGN INVESTMENTS

Enhancing regional connectivity is one of India's top foreign policy priorities. In August 2020, an impact paper titled "When Land Comes in the Way: India's Connectivity Infrastructure in Nepal" by Constantino Xavier and Riya Sinha, shed light on land acquisition as a particular challenge in the implementation of Indian government-funded infrastructure projects in the neighbourhood. Through two case studies in Nepal – the Postal Highway (Hulaki Rajmarg) and the Jogbani-Biratnagar Railway Line, the authors examine land-related issues in key infrastructure projects and offer policy recommendations to address the gaps. Additionally, the paper also contributes to the evolving policy and institutional debates on how the Indian government, and the Ministry of



External Affairs, in particular, can enhance its expert and technical capacity to engage in future land acquisition processes abroad, especially in the case of Nepal and other neighbouring countries.





## PROPERTY RIGHTS AND SOCIAL MOBILITY

Tenure security is not only an indicator of economic outcomes but also impacts social mobility and health. Using data from the Teen Age Girls [TAG] survey of Project Nanhi Kali, we explored how property rights influence health outcomes of adolescent girls in India. The November 2020 Impact Paper, "Do property rights explain health outcomes of adolescent girls in India?" by Pradeep Guin, Neelanjana Gupta, Krishanu Karmakar & Kaveri Thara shows that teenage girls who lived in pucca houses were, on an average, taller and with higher body mass index (BMI), when compared to those living in semi-pucca and kutcha houses — a finding that has major implications for understanding health outcomes in India and its connection with necessities, such as housing.

兴

#### **PUBLICATIONS** -

- How technology could promote growth in 6 African countries Bhaskar Chakravorti and Ravi Shankar Chaturvedi | Harvard Business Review | Research Report
- . Medicines in India: Accessibility, affordability and quality Prachi Singh, Shamika Ravi, and David Dam | Report
- Mobility and tenure choice in urban India Arnab Dutta, Sahil Gandhi, and Richard K. Green | Working Paper
- Digital light at the end of the COVID-19 tunnel for India? Bhaskar Chakravorti, Ravi Shankar Chaturvedi, Christina Kwauk, and Zhuo Zhang | The Fletcher School, Tufts University | Research Report
- Breaking down silos to improve the health of older adults: The case for medicare to cover home safety renovations Richard K. Green, Patricia F. Harris, Anthony W. Orlando | Ageing Research Reviews | Paper
- IMF Quota reforms and global economic governance: What does the future hold?

Rakesh Mohan | Working Paper

• Wage trickle down vs. rent trickle down: How does an increase in college graduates affect wages and rents?

Jung Hyun Choi, Richard K. Green, and Eul Noh | Journal of Regional

• Do property rights explain health outcomes of adolescent girls in India?

Pradeep Guin, Neelanjana Gupta, Krishanu Karmakar & Kaveri Thara | Impact Paper

- India's housing vacancy paradox: How rent control and weak contract enforcement produce unoccupied units and a housing shortage at the same time Sahil Gandhi, Richard K. Green and Shaonlee Patranabis | Working Paper
- . A third generation strategy for accelerated growth and development in India: Need for government strengthening and institutional development

Rakesh Mohan | Working paper

#### **BLOGS AND OP-EDS**

 COVID-19 | Is India's health infrastructure equipped to handle an epidemic?

Prachi Singh, Shamika Ravi, and Sikim Chakraborty | Blog

- . COVID-19 | Does India have enough doctors? An analysis of growing COVID-19 patients and existing medical capacity Prachi Singh, Dweepobotee Brahma, and Sikim Chakraborty | Blog
- The early days of a global pandemic: A timeline of COVID-19 spread and government interventions Dweepobotee Brahma, Sikim Chakraborty, and Aradhika Menokee | Blog
- Are slums more vulnerable to the COVID-19 pandemic: Evidence from Mumbai

Shaonlee Patranabis, Sahil Gandhi, and Vaidehi Tandel | Blog

. Beyond binaries: The coming together of Indian non-profit and for-profit organisations

Neelima Khetan & Aradhika Menokee | Blog

 What can a govt with a need to repress do in an era of the equally irrepressible internet? Look to China Bhaskar Chakravorti | The Indian Express

- Hope for new decade: State and society will find narrow corridor where both can be in balance Vikram Singh Mehta | The Financial Express
- · As Coronavirus spreads, so does fake news Bhaskar Chakravorti | Bloomberg
- Why it's so hard for users to control their data Bhaskar Chakravorti | Harvard Business Review
- Social media companies are taking steps to tamp down Coronavirus misinformation- but they can do more Bhaskar Chakravorti | The Conversation
- Disparity in the era of coronavirus: The disposables divide Rahul Tongia | Livemint
- . It is time for digital leaders to flatten the curve of the infodemic Bhaskar Chakravorti | The Indian Express
- Interview | Gauging the current economic scenario Rakesh Mohan | ET Now
- COVID-19 is a wake-up call for India's cities, where radical improvements in sanitation and planning are needed Gregory F. Randolph and Sahil Gandhi | Washington Post
- Interview | Indian economy and battling the slowdown Rakesh Mohan | CNBC TV
- Which countries were (and weren't) ready for remote work? Bhaskar Chakravorti | Harvard Business Review
- How COVID-19 is amplifying gender inequality in India Kadambari Shah, Sahil Gandhi, and Gregory Randolph | The Indian Express
- India needs an immediate fiscal stimulus of around 5% Rakesh Mohan | Hindustan Times
- Interview | Is India getting right mix of fiscal and monetary policy? Rakesh Mohan | Bloomberg Quint
- Interview | Prachi Singh talks about the impact of air pollution on child health and GDP Prachi Singh | Global Dispatches
- Exit from Coronavirus lockdowns- lessons from 6 countries Bhaskar Chakravorti | The Conversation
- Lawmakers keen to break up 'big tech' like Amazon and Google need to realize the world has changed a lot Bhaskar Chakravorti | The Conversation
- <u>Digital contact tracing's mixed record abroad spells trouble for</u> US efforts to rein in COVID-19 Bhaskar Chakravorti | The Conversation
- COVID-19: Remote working can't last forever Bhaskar Chakravorti | Barron's
- Pandemic has driven home need for collaborations in public policy between experts and administrators Vikram Singh Mehta | The Indian Express
- Dear Sundar Pichai: There's a lot you take on when you take on the task of digitising India. Here are a few pointers Bhaskar Chakravorti | The Indian Express

- . Make surveillance capitalists pay their dues Bhaskar Chakravorti | Foreign Policy
- Post-COVID 'new normal' might be marked by greater economic, social and political divisions Vikram Singh Mehta | The Indian Express
- Antitrust Isn't the solution to America's biggest tech problem Bhaskar Chakravorti I Harvard Business Review
- Over the barrel: Lessons from COVID-19 Vikram Singh Mehta | The Financial Express
- The case against big tech's election strategies Bhaskar Chakravorti | Foreign Policy
- . 5 questions about the antitrust case against Google that you should not be afraid to ask Bhaskar Chakravorti | Foreign Policy
- Post-Covid, lack of social security has made many migrants consider employment opportunities closer home Vikram Singh Mehta | The Indian Express
- · Portraits of power: 'Half a century of being at ringside' review: Bureaucrat, politician, bon vivant Rakesh Mohan & Jessica Seddon | The Hindu

- Interview | Should corporates be allowed to own banks? Rakesh Mohan | CNBC TV18
- . Why private banks, their ownership structures need to be strictly regulated: Part I

Rakesh Mohan | Business Standard

- Ownership and governance of private sector banks: Part II Rakesh Mohan | Business Standard
- . Ownership and governance of private sector banks: Part III Rakesh Mohan | Business Standard
- Which economies showed the most digital progress in 2020? Bhaskar Chakravorti, Ajay Bhalla, and Ravi Shankar Chaturvedi | Harvard Business Review
- The war over Justice Ruth Bader Ginsburg's legacy may overtake all other issues

Bhaskar Chakravorti | The Indian Express

• Indian cities in the post-pandemic world (experts for the housing section) Richard K. Green, Sahil Gandhi | World Economic Forum

- The effects of air pollution on health and productivity 5 February, 2020 | Development Seminar
- Unemployment and domestic violence- New evidence from administrative data 19 February, 2020 | Development Seminar
- The crisis of democratic capitalism 21 February, 2020 | Panel Disucussion
- Medicines in India 3 March, 2020 | Report launch
- Fractured global value chains post-COVID-19: Can India gain its missed glory?

29 May, 2020 | Webinar

• Third-generation reforms for India's growth and development

10 November, 2020 | Webniar In collaboration with SPJIMR's Centre for Financial Studies (CFS)

#### PANEL DISCUSSION | THE CRISIS OF DEMOCRATIC CAPITALISM



The panel discussion featured keynote speaker Martin Wolf, Chief Economics. Commentator and Associate Editor, The Financial Times, who discussed the complex history of the relationship between free-market capitalism and democracy and how the current stresses between the two have developed. The panelists included Surjit S. Bhalla, Executive Director for India on the board of the International Monetary Fund (IMF) and **Pratap Bhanu Mehta**, Professor of Political Science and Former Vice-Chancellor, Ashoka University; moderated by **Shamika Ravi**, former Senior Fellow, Brookings India.





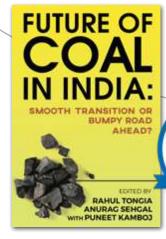
The Energy, Natural Resources and Sustainability vertical at CSEP is dedicated to conducting comprehensive research on India's use of energy and natural resources and how these can be made sustainable. Segments of focus span supply options (including coal, oil & gas, and renewables), clean tech, electricity systems and their regulation, electric vehicles, smart grids, minerals and mining, and environment and climate change.



#### COAL

No discussion of global climate change can ignore India, and no discussion of India's energy future can ignore coal, which provides about half of India's energy. If the global focus is on the energy transition, how does India ensure a just transition? Managing winners and losers will be the single largest challenge for India's energy policy.

Coal faces inevitable pressure from renewable energy, which is the cheapest option for new builds. Local air pollution is a national crisis, with seven of the world's top 10 polluted cities in India. This places further pressure on coal-based power generation. However, low per-capita energy consumption means India must still grow its energy supply. Before India can phase out coal, it must first achieve a plateau of coal. How this happens costeffectively and with least resistance isn't just a technical or economic question, it depends on the political economy of coal and its alternatives. There are also significant issues of winners and losers.



Some stakeholders want to kill coal. A wiser option may be to first clean it up, instead of wishing it away. Our book **Future of Coal in India: Smooth Transition or Bumpy Road Ahead?** edited by Rahul Tongia and Anurag Sehgal with Puneet Kamboj, across 18 chapters from leading experts in the field, examines all aspects of coal's future in India. It attempts to combine the big picture with details, bringing them together to offer a range of policy options, and includes extensive in-house primary analysis.

**BEST NEW ENERGY** 

POLICY BOOKS



The book launch featured **Anil Jain,** Secretary, Ministry of Coal, Govt. of India, **Ajay Mathur,** Director General, TERI and Co-Chair, Energy Transitions Commission, **Partha Bhattacharyya,** former Chairman, Coal India Limited, with opening remarks from **Vikram Singh** Me**hta,** Chairman and Distinguished Fellow, CSEP. The event was moderated by **Rahul Tongia**, Senior Fellow, CSEP.



### RENEWABLE ENERGY AND THE ENERGY TRANSITION

While coal remains a dominant fuel for India, decarbonisation is spearheaded by the rise of Renewable Energy (RE). India has some of the world's most ambitious RE targets, which raise a host of questions our scholars have been studying, ranging from how is this financed to how is this integrated.

An analysis published online showed how the entry of the private sector for coal mining shouldn't raise emissions as it is demand that will determine future energy mix, not where the supply comes from (domestic versus

imported). This will be determined by the trajectory for not just RE but also affiliated technologies and frameworks, including storage (batteries), grid redesign, etc.

Using granular data from our Carbon Tracker, we are studying two key issues for scaling RE, namely, how much can RE grow before we require storage, and even when we need storage, how much do we require, with what expected duty cycle? These will inform government planning that is heavily centered around targets.



#### **ELECTRICITY AND CARBON TRACKER**

The CSEP Electricity & Carbon Tracker (carbontracker. in) is India's first public portal that tracks real-time electricity generation by type of source as well as electricity carbon emissions at an all-India level and provides visualisation and analytics tools. It now has two years of high-resolution data, and has been a goto source for many researchers and organisations for understanding the critical issue of balancing the grid continuously, especially by time of day. It has also been cited by numerous publications, including the Wall Street Journal and Hindustan Times.

We used the tracker to explore the drop, surge and balancing in electricity generation on April 15, 2020, at 9:00 pm, when the Prime Minister requested people to turn off electricity as a means of solidarity with COVID-19 essential services providers.

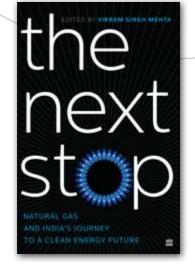


We are presently finishing a study on examining the interplay of various sources of electricity in terms of balancing, ramping, correlations, variability (especially for renewable energy), etc. We also aim to expand the model to sub-national data (selected states), and build upon these data for domain-focused insights, e.g., how to ensure new loads like electric vehicles (EVs) align with clean energy.



#### **NATURAL GAS**

The Indian economy is built around fossil fuels. To shift it on to a different, clean energy base will require a major and expensive structural overhaul. There are several challenges in India's path, including the lack of robust grid infrastructure, issues of competitiveness and affordability and moreover, the absence of a governance mechanism for collaborative and integrated decisionmaking for the energy sector. CSEP recently concluded a year-long study on the natural gas sector, culminating in a forthcoming book with Harper Collins, **The Next** Stop: Natural Gas and India's Journey to a Clean Energy Future, edited by Vikram Singh Mehta, which offers a policy roadmap for the sector.



The book is based on the conviction that India cannot afford to develop now and clean up later. It must establish a balance between economic growth and environmental sustainability. Deepening the share of natural

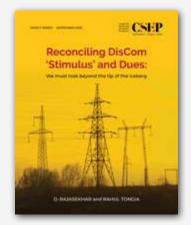
gas in the energy consumption basket is the essential next stop, since it is the cleanest of all fossil fuels, has multiple usages, is competitive in terms of pricing, and offers a buffer against geopolitical uncertainties. Across 24 chapters, authors from diverse backgrounds address specific and separate issues of relevance to the natural gas sector.



#### **ELECTRICITY DISCOMS**

Electricity Distribution Companies or DisComs are the linchpin for all of India's ambitions for making electricity clean and smart. Unfortunately, they are also the weakest link, and have a poor track record in terms of both financial and operational performance. As part of a multiyear deep dive on the future of DisComs, we are focused on a range of studies spanning descriptive analysis to prescriptive—what may happen in the future especially as both technologies and policies change.

We have manually compiled operational and pricing data from almost all the DisComs across India and are using this to examine the link between operational and financial performance, as well as reasons for heterogeneity in outcomes across India. Our recent study found enormous cash flow shortfalls that are distinct from officially stated book accounting, and ongoing research examines more



nuanced challenges of finance, government support, and cost coverage.

This work aims to combine a detailed political economy

analysis of DisComs with bottom-up modeling of their current and future prospects under various scenarios of targets and an explicit or implicit social contract. Without such an understanding, no amount of top-down push is likely to come to fruition. The research aims to inform and improve not just broader policy but specific targets and programs as well, which would benefit from a holistic analysis instead of the narrower silos in which most programs are anchored.



#### **FUTURE ELECTRICITY SYSTEMS** AND REGULATION

The electricity grid has been called the most complex system in the world, and the complexity will only increase because of technological and policy shifts, including the rise of renewable energy and a greater role for consumers to both harness their own renewable generation as well as seek alternative suppliers. We are building a larger portfolio of studies that brings together many of the diverse threads across electricity.

A key focus area has been analysis on the future grid and market design, which ties directly to issues of contracts, pricing, incentives, etc. We provided inputs on how regulations should empower consumers, as well as on a range of upcoming policy proposals, including amendments to the Electricity Act. We have also extensively studied the issue of pricing subsidies and lifeline supply, including for the states of Delhi and Jharkhand.



#### **SMART GRIDS AND POWER SECTOR DATA**

In addition to the decarbonisation transition, there is a digitalization transformation underway for electricity and energy, worldwide. We continued deep analysis on Smart Grids and Smart Meters, including a cost-benefit analysis of smart meters, which has been shared with key government and industry stakeholders.

We were partners for the India Smart Utility Week, the flagship event for smart grids and smart utilities in India, organised by the India Smart Grid Forum (ISGF), where Rahul Tongia, Senior Fellow, CSEP, is Founding Advisor. Our experts also chaired or moderated a number of events in this space, and had opinion pieces or other engagements on Smart Meters and Smart Grids.

CSEP is the secretariat for the India Energy Network of Scholars, which includes dozens of senior researchers in the space, worldwide. As part of our collective efforts, we gave the Indian government feedback on upcoming data portals and suggestions for integrating best practices.

Consumers are a key aspect of the future grid, where they can be power producers-consumers (prosumers). Research on best practices for consumer data continues, including a roundtable discussion on the sidelines of Distribution Utility Meet 2020.





#### **CLIMATE CHANGE**

There is increasing evidence that climate change will have a significant impact on the economy and society globally, but more so in India. The impact on stressed land, water, and vegetation is little researched in the Indian context. There would also be wideranging consequences affecting agriculture, energy, infrastructure, industry, and even the financial sector. To this, we will need to add how climate change will impact health, labour supply and household consumption patterns. Finally, there would also be indirect or second and third-order effects, as upstream and downstream changes percolate through the economy. In the Asian and Indian context, these challenges will be further

exacerbated by the combination of population and income growth that place further stress on the environment.

How should we deal with these emerging challenges? This question necessitates an understanding from the ground up. At CSEP, our research on climate change seeks to identify actions that India needs to take to tackle this issue, whether they are related to mitigation or adaptation. The end objective is to evolve a specific set of policy recommendations related to institutions, investments, innovation, global agreements, and corrective actions that would help India better deal with the obvious challenges ahead.





#### MINERALS AND MINING

The mining sector in India can help create the necessary momentum for sustained and inclusive economic growth. Efficient mining operations are crucial for jobs, incomes, downstream processing, and manufacturing activities. Some of the critical minerals go as inputs for manufacturing clean energy apparatus, electric vehicles, electronics, and space technology. India's geology has often been compared with that of Australia, Canada and South Africa, but we have not been able to match the success of these countries. There is considerable scope for expanding mining activity through reconnaissance, exploration and extraction.

The Centre for Social and Economic Progress's work programme on Non-Fuel Minerals and Mining in India (NFM&MIN) aims to impact government policies that enable sustainable growth of this sector in alignment with the welfare of affected communities.

Our scholars have worked on various strands of emerging issues in India's mining sector. The Input-Output



transactions tables have been computed for India and the state of Odisha. The sectors include non-fuel minerals, viz. iron ore, manganese ore, bauxite, copper ore, other metallic minerals, limestone, mica, and other non-metallic minerals. The tables can be used to compute the backward and the forward



linkages of the mining sectors and their income, output and employment multipliers.

The 2015 amendment to the Mines and Minerals (Development and Regulation), Act, 1957 addressed the Supreme Court's three major concerns: transparency, fairness, and

objectivity in the mineral asset dispensation process. On the normative front, the MMDR (Amendment) Act, 2015, provisioned setting up District Mineral Foundations (DMF) in the districts affected by mining-related operations to benefit affected persons and areas. Ou work has covered topics such as enhancing mineral exploration, post-leasing clearance mechanism, mineral royalty rates, mineral rights auction, the importance of critical minerals in clean energy alternatives, mining and jurisprudence, and the use of DMF funds for the welfare of affected local communities.

Our work also touched upon the necessity of conducting comprehensive Environment Impact Assessment (EIA) of a project at the stage of its conception to safeguard the environment and the livelihood and health of local communities. An ongoing study aims to construct a CSEP Sustainable Mining Attractiveness Index (C-SMAI) through a comprehensive exercise that rates and ranks the districts of Jharkhand, as per their Sustainable Mining Potential.



# PANEL DISCUSSION | USING DISTRICT MINERAL FOUNDATION FUNDS EFFECTIVELY

The Non-Fuel Minerals and Mining program organised a webinar to discuss how District Mineral Foundation (DMF) funds can be deployed to alleviate healthcare and economic conditions in the mining districts. The panel featured Arun Kumar, Former Secretary, Ministry of Mines; Sanjeev Verma, Director, Ministry of Mines; Ashish Thakare, Collector and District Magistrate, Keonjhar, Odisha; and Srestha Banerjee, Visiting Scholar, Brookings India, while Rajesh Chadha, Program Director, Non-Fuel Minerals and Mining, CSEP, moderated the panel discussion.

#### **ENERGY. NATURAL RESOURCES AND SUSTAINABILITY**

#### **PUBLICATIONS**

. Non-fuel minerals and mining in India: Background and the

Rajesh Chadha & Ganesh Sivamani | Discussion Note

- Input-output transactions table: India 2015-16 Rajesh Chadha, M.R Saluja & Ganesh Sivamani | Working Paper
- Regulatory reform for non-fuel minerals: Improving the post-leasing clearance mechanism Srestha Banerjee | Working Paper
- Enhancing mineral exploration in India Biplob Chatterjee and Rajesh Chadha | Discussion Note
- Impact of temperature on electricity demand: Evidence from Delhi and Indian states Santosh Harish, Nishmeet Singh, and Rahul Tongia | Energy Policy |
- Fractured Global Value Chains post COVID-19: Can India gain its missed glory?

Rajesh Chadha | Discussion Note

- DisComs post-COVID-19: Untangling the historical challenges, short-term needs, and long-term ambitions Rahul Tongia | Discussion Note
- An analysis of non-fuel mineral blocks auctions in India Ganesh Sivamani | Discussion Note
- Falling short of addressing the real challenges: Comments and analysis on the draft electricity (Amendment) Bill 2020 Daljit Singh and Rahul Tongia | Discussion Note
- Skewed critical minerals global supply chains post COVID-19 Rajesh Chadha | Discussion Note
- Mining and jurisprudence: Observations for India's mining sector to improve environmental and social performance Srestha Banerjee | Working Paper
- Minerals royalty rates in India: Comparison with other countries Ishita Kapoor | Discussion Note
- · Future of coal in India: Smooth transition or bumpy road ahead Rahul Tongia & Anurag Sehgal, with Puneet Kamboj | Book
- . Reconciling DisCom 'stimulus' and dues: We must look beyond the tip of the iceberg

Rajasekhar Devaguptapu & Rahul Tongia | Impact Paper

- Input-output transactions table: Odisha 2015-16 Raiesh Chadha, M.R Saluia & Ganesh Sivamani | Working Paper
- · National policy interventions in current Indian power generation produce disparate, state-level spatial carbon and sulfur

Shayak Sengupta, Thomas A Deetjen, Puneet Kamboj, Swati D'Souza, Peter J Adams, Rahul Tongia and Ines Azevedo, | Paper presented at the AGU Fall Meeting December 2020

#### BLOGS AND OP-EDS ———

- Utilising district mineral foundation funds to fight the COVID-19 crisis in India: Current and future opportunities Srestha Banerjee | Blog
- District mineral foundation funds crucial resource for ensuring income security in mining areas post COVID-19 Srestha Banerjee | Blog
- Is COVID-19 an opportunity to clean up India's coal power plants faster? Muhammad Tabish Parray | Blog
- Why India's push for private-sector coal mining won't raise carbon Rahul Tongia | Blog
- India's energy transition: Coal is down but not out Rahul Tongia | Blog
- · India needs to strengthen, not dilute, environmental assessments Rajesh Chadha & Ganesh Sivamani | Blog
- Reforms in the mining sector: Comments and recommendations Rajesh Chadha & Ganesh Sivamani | Blog
- . How to hasten the energy transition in the developing world Rahul Tongia | World Economic Forum
- Oil in a post-COVID world Vikram Singh Mehta | The Indian Express
- 'It's the death knell for the oil industry': Vikram Singh Mehta talks about the crude oil price dive Vikram Singh Mehta | The Indian Express
- Oil's not well- How the drastic fall in prices will impact South Asia Vikram Singh Mehta | South Asia Chat
- In a post-COVID-19 world, we will need a mindset of preparedness to deal with all oil eventualities Vikram Singh Mehta | The Indian Express
- India's DisCom stress is more than the sum of its past Rajasekhar Devaguptapu & Rahul Tongia | The Hindu
- . Climate change and the transfer of power Laveesh Bhandari | Business Standard
- No reason why new entrants to coal mining can't be successful' Rahul Tongia | Coal Insights
- Coal power plants need an integrated approach Daljit Singh & Rahul Tongia | Hindustan Times
- A new map for the end of oil age: Technology is answer to energy

Vikram Singh Mehta | The Indian Express

- Getting back on track Rahul Tongia, Perspective | Renewable Watch
- Protecting consumer rights: Implications of the MoP's draft

Rajasekhar Devaguptapu, Rahul Tongia, and Nikhil Tyagi | Powerline Magazine

• Old king coal is dead - long live the king Rahul Tongia | Saur Energy International

. Coal is not going away anytime soon. Let's clean it up instead of wishing it away

Rahul Tongia | Economic Times

- Demand slide: Views of sector experts Rahul Tongia | PowerLine Magazine
- Power blueprint: Experts review key provisions in the draft **Electricity Amendment Bill, 2020**

Daljit Singh and Rahul Tongia | PowerLine Magazine

• Coping with the crisis: Industry views on the impact of COVID-19 on power sector

Rahul Tongia | PowerLine Magazine

• Bundling benefits: Impact of proposed MNRE scheme to sell solar power along with thermal

Rahul Tongia | Renewable Watch

 What if I told you that rural areas cross-subsidise urban areas for electricity?

Rahul Tongia | BusinessIndia special on Climate Change

- . Bundling benefits: Impact of proposed MNRE scheme to sell solar power along with thermal Rahul Tongia | PowerLine Magazine
- Coal mining in India: Enter, the private sector

Rahul Tongia | The Bastion: Development in Depth

• World Development Report 2020: Trading for development in the age of global value chains

8 January, 2020 | Panel Discussion

· Accelerating India's adoption of stationary energy storage: Key issues and potential solutions

17 January, 2020 | Roundtable In collaboration with Indian School of Business (ISB)

• Economic development through efficient and sustainable non-fuel mining

28 January, 2020 | Seminar

• Electricity Discoms in India post-COVID-19: Untangling the shortrun from the "new normal"

7 May, 2020 | Webinar

• Strengthening local economies and healthcare post-COVID-19: Opportunities to use District Mineral Foundation funds effectively in mining districts in India

26 May, 2020 | Webinar

- Power sector data and portals June 3, 2020 | Workshop
- Environmental and social licenses for mining projects in India: Assessing regulatory gaps and prospects for reform

8 June 2020 | Webinar In collaboration with CIRDI

. Web workshop with the office of the Principal Accountant General (Audit), Bihar

25 June, 2020 | Workshop

- Future of coal in India: Smooth transition or bumpy road ahead? 7 September, 2020 | Book Launch
- The new map: Energy, climate and the clash of nations 3 December, 2020 | Panel Discussion

#### PANEL DISCUSSION | THE NEW MAP: ENERGY, CLIMATE AND THE CLASH OF NATIONS

We held a panel discussion on Daniel Yergin's book, The New Map: Energy, Climate and the Clash of Nations, where the Pulitzer-winning author discussed the past, present and future of energy, including whether the pandemic will hasten or hinder the energy transition.

The panel featured Arvind Subramanian, Director, Ashoka Center for Economic Policy and former Chief Economic Adviser; Shivshankar Menon, Distinguished Fellow, CSEP and former National Security Adviser: Naushad Forbes. co-Chairman. Forbes Marshall; moderated by Vikram Singh Mehta, Chairman and Distinguished Fellow, CSEP.









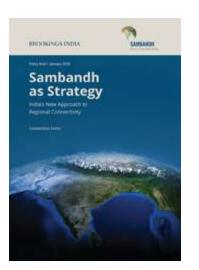
In February 2020, we launched the Sambandh Regional Connectivity Initiative to conduct data-driven research to map India's links with neighbouring countries, including Afghanistan, Bangladesh, Bhutan, Maldives, Myanmar, Nepal, Pakistan, and Sri Lanka. Driven by a holistic understanding of connectivity, Sambandh surveys India's regional integration across socio-cultural, economic, environmental, political, and security indicators. The initiative is based on collaborative inputs from scholars and practitioners to offer empirical insights and recommendations for policymakers and other stakeholders invested in reconnecting India with South Asia, Bay of Bengal, and the Indo-Pacific.

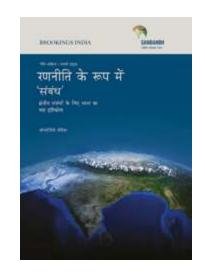


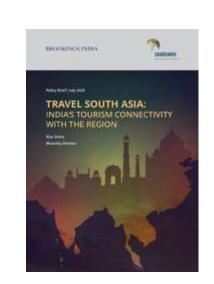
(L to R) Rohan Samarajiva, Tariq Karim, Devirupa Mitra, Swarnim Wagle, Anasua Basu Ray Chaudhury, and Constantino Xavier at the launch of the Sambandh initiative.



Constantino Xavier presents the Sambandh Initiative and its first policy brief.







The initiative was inaugurated with a regional discussion on Sambandh: Reconnecting India and the Region.

The first policy brief of the initiative, Sambandh as Strategy: India's new approach to Regional Connectivity, authored by Constantino Xavier, was also released during the event. The initiative released several studies on select indicators of regional connectivity, including on education, trade, tourism, and humanitarian assistance and disaster relief. Based on a year-long study of Indian

assistance for cross-border connectivity infrastructure in Nepal, our scholars Constantino Xavier and Riya Sinha co-authored a paper on the challenges of land acquisition focused on two road and rail projects: When Land Comes in the Way: India's Connectivity Infrastructure in Nepal.

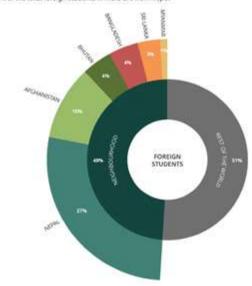
The Sambandh Scholars Speak blog series on the CSEP website features interviews with scholars and experts on regional connectivity in South Asia, covering diverse topics such as border enclaves, democratic transition, and energy cooperation in the neighbourhood.

In order to generate greater understanding and dialogue on critical developments in India's immediate neighbourhood, we have also organised several events (both in-person and online) around our research publications and on timely topics such as the impact of Covid-19 on regional connectivity. The panels featured distinguished expert from South Asia, including scholars and former government officials.

# 

Figure 2: Number of Students in India from the South Asian Region or N8 (2018-19)

27% of the total foreign students in India are from Nepal



Note: The share of Middlery's last than I'm, hence not reflected in the Figure.
NR. eighunntum, Bungladech, Bhotan, Middler, Mysronas, Negor, Poliston, and bit Lass









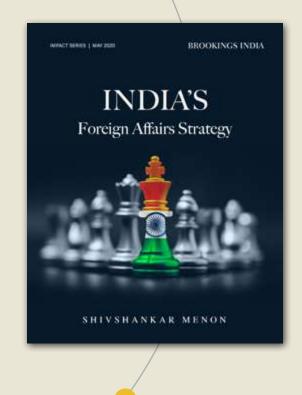
# FOREIGN AFFAIRS STRATEGY

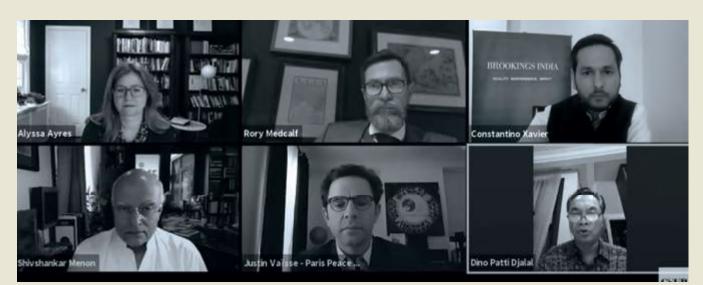
Excerpt from the paper: "India finds itself in an increasingly dangerous world, one that is fragmenting and slowing down economically. It is a world in transition, one in which India's adversaries — state or non-state, or both as in Pakistan's case — are becoming increasingly powerful. If the external world is becoming more unpredictable and uncertain, so are internal politics and security in most of the powers. These are challenges that traditional institutions and state structures are not well-equipped to handle, mitigate, or solve. In this changing world, what are some of the basic and long-term drivers of India's foreign policy which determine the overarching goal? What is India's strategy to achieve those goals? What should India be doing?

Simply put, the task of India's foreign policy is to protect and secure India's integrity, citizens, values and assets, and to enable the development and transformation of India into a modern nation in which every Indian can achieve his or her full potential. The task of foreign policy professionals is to enable the transformation of India and to create an environment for that transformation".

#### Shivshankar Menon,

Former National Security Advisor, Distinguished Fellow, CSEP





The panel discussion around the report featured Alyssa Ayres, Senior Fellow, Council on Foreign Relations, and former Deputy Assistant Secretary of State for South Asia, United States; **Dino Patti Djalal**, former Deputy Foreign Minister, Indonesia; **Rory Medcalf**, Professor and Head, National Security College, Australian National University, and former diplomat to India, Australia; **Shivshankar Menon**, Distinguished Fellow, CSEP, and former National Security Advisor, India; **Justin Vaïsse**, Director General, Paris Peace Forum, and former Director, Policy Planning Staff, Ministry of Foreign Affairs, France; moderated by **Constantino Xavier**, Fellow, Foreign Policy and Security Studies, CSEP.



# CHINA'S NEW INFLUENCE IN SOUTH ASIA

This collaborative research project seeks to assess how China is becoming an increasingly influential actor beyond just trade, investments and other economic ties with India and its neighbours. Led by CSEP scholars Shivshankar Menon, Constantino Xavier and Antara Ghosal Singh, it examines China's growing role in a range of sectors such as education, media, public diplomacy, technology, social media, civil society, politics, religion and governance. Our project will be the first systematic, evidence-based analysis of this new China in India and its democratic neighbourhood.

The project features several comparative seminars on Chinese influence in other parts of the world, including in Central Europe and other parts of Asia. Through regional workshops with researchers from India and South Asia including Nepal, Sri Lanka and Bangladesh, the project will culminate in an edited report with case studies of Chinese influence across a range of countries and sectors in India and South Asia. This will be of relevance for scholars, decision-makers and policy analysts that seek to get more nuanced insights on how China is pursuing its interests to shape a new South Asia.

#### CHINESE INVESTMENTS IN INDIA

Since 2014, an influx of Chinese capital in India has transformed the structure of India's trade and investment relations with China. An Impact Paper by Visiting Fellow Ananth Krishnan provided a more complete picture of Chinese investment in India and assessed the implications of Chinese investment and acquisitions for India's diplomacy, trade strategy, and security.

The paper highlights how Beijing's foreign policy is shaped by the growing weight and stakes of new actors—the private sector and provincial governments – and how India needs to proactively engage with them. India should re-examine and update its trade and investment strategy and better leverage the growing stakes of Chinese companies in the Indian market, if it wishes to pursue



its trade objectives with China. The paper argues that while it is in India's interests to enable this process through creating a friendly, open and predictable investment environment, the

government will also need to more proactively safeguard longer-term considerations of security and privacy as it opens the door to new sources of investment.

#### FOREIGN POLICY AND SECURITY

#### **PUBLICATIONS**

 India's reluctant but democratic approach to conflict resolution and peacebuilding

Constantino Xavier | Conflict Prevention and Peacebuilding in Asia: Lessons in South-South Cooperation (Korea Development Institute and The Asia Foundation) | Book Chapter

- · Sambandh as strategy: India's new approach to regional connectivity Constantino Xavier | Policy Brief
- Regional connectivity and India's BIMSTEC policy Constantino Xavier, Riya Sinha | National Security (Vivekananda International Foundation) | Paper
- . The absent dialogue: Politicians, bureaucrats and the military in India 30 January, 2020 | Book Launch
- Is India still the neighbourhood's education hub? Constantino Xavier, Aakshi Chaba, and Geetika Dang | Policy Brief
- · Across the Himalayas: China in India's neighborhood Constantino Xavier | Routledge Handbook of China-India Relations
- . Following the money: China Inc's growing stake in India-China relations Ananth Krishnan I Impact Paper
- India's foreign affairs strategy Shiyshankar Menon I Impact Paper
- India's limited trade connectivity with South Asia Riya Sinha and Niara Sareen | Policy Brief
- Travel South Asia: India's tourism connectivity with the region Riya Sinha and Bhumika Sharma | Policy Brief
- When land comes in the way: India's connectivity infrastructure in Nepal Constantino Xavier and Riya Sinha | Impact Paper
- Neighbourhood first responder: India's humanitarian assistance and disaster relief

Saneet Chakradeo | Policy Brief

• India-China maritime competition: The security dilemma at sea

Rajesh M. Basrur, Anit Mukherjee and T. V. Paul | Co-edited book

• Cultures of pluralism in India's soft power strategy Constantino Xavier | India's Great Power Politics: Managing China's Rise (Routledge) | Book Chapter

#### **BLOGS AND OP-EDS**

- India and Myanmar: The role of domestic calculations in the boundary agreement of 1967 Nidhi Varma | Blog
- Fuzzy frames: Mobile borders versus rigid boundaries in India's neighbourhood Nidhi Varma | Blog
- The road from India to Nepal: Development assistance and connectivity projects Riya Sinha | Blog
- How does the India-China rivalry affect secondary state behaviour in South Asia?
- Saneet Chakradeo | Blog • India and Bangladesh: Exchanging border enclaves & (re-)
- connecting with new citizens Nitika Nayar | Blog

- Linking border-making and sovereignty in postcolonial South Asia Riva Sinha | Blog
- . Interview: On India's neighbourhood, regional institutions and Delhi's policy space

Constantino Xavier | Blog

- Interpreting the India-Nepal border dispute Constantino Xavier | Blog
- Conflict, conservation, and cooperation across the India-Bhutan border Umika Chanana | Blog
- Mughal empire and the making of a region: Locating South Asia in early modern international order Sofia Shehana Basheer | Blog

- . Bhutan's democratic transition and ties to India Constantino Xavier | Blog
- Reviving energy cooperation in South Asia Saheb Singh Chadha | Blog
- India-Bhutan hydropower cooperation: Perceptions and politics Saneet Chakradeo | Blog
- Buddhism and the India-China rivalry in the himalayas Kanishkh Kanodia | Blog
- · The quest for regional connectivity Constantino Xavier | Hindustan Times
- China is the new hub for South Asian students Constantino Xavier, Aakshi Chaba | Hindustan Times
- India-Nepal connectivity challenges (Nepali)
- Constantino Xavier and Riya Sinha | The Annapurna Express • Individual and ideological immunity? The resilience of Indian

foreign policy Constantino Xavier | NBR

- Interview | India-Nepal diplomatic row and China's shadow Constanting Xavier | FTV Bharat
- Interview | The global eye- India-Nepal ties Constantino Xavier | CNBC TV
- COVID-19: Getting Indian citizens back home

Constantino Xavier | Hindustan Times

 Interview | Comparative politics and international relations: Lessons for Indian foreign policy

Constantino Xavier | Buzzsprout

- . Countering China in Nepal and the neighbourhood Constantino Xavier | India Today
- . Why Jagat Mehta would have seen Xi in the Mao mould, not Deng Vikram Singh Mehta | The Indian Express
- . ICE's international student ban is a politicised pandemic response that hurts America

Bhaskar Chakravorti | NBC News

- India needs to invest in regional disaster relief mechanisms Saneet Chakradeo | Hindustan Times
- How India can take the lead in reviving tourism in South Asia Riya Sinha & Bhumika Sharma | Hindustan Times

· Make way for connectivity projects

Constantino Xavier & Riya Sinha | The Kathmandu Post

• Healer-in-chief: Joe Biden will need healing superpowers to get through his first hundred days

Bhaskar Chakravorti | The Indian Express

 Their ties go back in time but India, China were absent from each other's strategic calculus

Shivshankar Menon | The Wire

- Does India's neighbourhood policy need reworking? Constantino Xavier | The Hindu
- · What China hopes to gain from the present border standoff with India Shivshankar Menon | The Wire
- . India-China ties: The future holds 'antagonistic cooperation', not war Shivshankar Menon | The Wire
- · South Asia must now build resilient supply chains Riya Sinha, Niara Sareen | Hindustan Times

• League of nationalists: How Trump and Modi refashioned the U.S.-Indian relationship

Shivshankar Menon | Foreign Affairs

- Domestic concerns still shape India's foreign policy Shivshankar Menon | East Asia Forum
- India & China: Past, present, & future Shivshankar Menon | ThePrint
- . COVID cast: Wolf warriors in the age of COVID Shivshankar Menon | Lowy Institute
- Interview | "China has broken past agreements" Shivshankar Menon | ThePrint
- Interview | India and China in the new asian geopolitics Shivshankar Menon | The New School
- Interview | P. V. Narasimha Rao's masterclass in foreign relations Shivshankar Menon | South Asia Monitor

#### **EVENTS**

- Understanding the calculus of smaller South Asian countries as India rises 13 January, 2020 | Tifffin Talk
- Nepal, India and the himalayan connectivity challenge 21 January, 2020 | Seminar
- India as a rising power: Opportunities and constraints in the 21st century 4 February, 2020 | Tiffin Talk
- Sambandh: Reconnecting India and the region 6 February, 2020 | Launch and Panel Discussion
- Critical connectivity infrastructure projects: Accelerating land acquisition abroad to enhance India's regional connectivity 7 February, 2020 | Roundtable Discussion
- Following the money: China Inc's growing stake in India-China relations 30 April, 2020 | Panel Discussion
- Will COVID-19 reverse regional connectivity? Perspectives from South Asia 13 May, 2020 | Panel Discussion

- Must India's foreign affairs strategy change? 20 May, 2020 | Panel Discussion
- India and the European Union: Next steps in strategic partnership 16 July, 2020 | Webinar
- India's China challenge 5 October, 2020 | Book Launch & Discussion
- India's connectivity infrastructure in Nepal 6 November 2020 | Panel Discussion
- China's influence in central Europe and the Case of South Asia 22 December, 2020 | Seminar
- Neighbourhood first responder: India's humanitarian assistance & disaster relief

8 December, 2020 | Launch and Panel Discussion



#### BOOK LAUNCH | THE ABSENT DIALOGUE

On 30 January, 2020, in partnership with the S. Rajaratnam School of International Studies (RSIS), Nanyang Technological University, we held a book discussion at the India Internationa Centre to launch "The Absent Dialogue: Politicians, Bureaucrats, and the Military in India," authored by Anit Mukherjee, Non-Resident Fellow, CSEP. The discussion ncluded welcome remarks by **Shamika Ravi,** former Senio Fellow, Brookings India, followed by a panel discussion featuring **Rajeev Chandrasekhar,** Member of Parliament, Rajya Sabha, General V.P. Malik, former Chief of Army Staff, Indian Army, Sanjay Mitra, former Secretary, Ministry of Defence, Manvendra Singh, former Member, Standing Committee on Defence. The discussion was moderated by **Barkha Dutt**, senior journalist and columnist, The Washington Post



# COMMUNICATIONS AND OUTREACH

At the Centre for Social and Economic
Progress, we place a strong emphasis on
disseminating our research, ensuring that
our findings reach the right stakeholders
at the right time, and in the right format.
We publish long-form Reports, Impact
Papers, Policy Briefs, Discussion Notes
and Blogs which offering new research,
context and background and giving concrete
recommendations on a variety of policy issues.

In addition to this, scholars at CSEP frequently write for a variety of notable national and international publications and participate in public debates. Our events bring together academics, politicians, bureaucrats, corporates, diplomats, among others, for candid discussions.

81%
Growth in followers

8,000 followers



O / Op-eds and commentary





Research publications and blogs

414,038

Minutes of watch time



28
Events and webinars



3-FOLD growth in our following

### FLAGSHIP SEMINAR •



Rakesh Mohan, Douglas Irwin, Anne Krueger, Ernesto Zedillo and Montek Singh Ahluwalia at CSEP's first Flagship Seminar

The Centre for Social and Economic Progress (CSEP), held its first **Flagship Seminar** on December 17, 2020, with renowned economist **Anne Krueger,** Senior Research Professor of International Economics at the Johns Hopkins School of Advanced International Studies, on her new book, *International Trade: What Everyone Needs to Know.* 

The panel featured **Ernesto Zedillo**, former President of Mexico and the Director of the Centre for the Study of Globalization at Yale University; **Montek Singh Ahluwalia**, former Finance Secretary and Deputy Chairman of the Planning Commission; **Douglas Irwin**, John French Professor of Economics at Dartmouth College and Non-Resident Senior Fellow at the Peterson Institute for International Economics; and **Rakesh Mohan**, President & Distinguished Fellow at CSEP and former Executive Director on the Board of the International Monetary Fund and former Deputy Governor of the RBI.

The wide-ranging conversation touched upon crucial contemporary issues, including the trade tensions among the leading economic powers of the world, the Trump administration's trade policies, and India's decision to opt out of the Regional Comprehensive Economic Partnership (RCEP).

"There are two key things to understand about trade: bilateralism does not work; you need to look at things multilaterally. Blocking trade, even when done for perfectly good intentions, hurts people in ways that are not spoken of enough."

**ANNE KRUEGER** 

### **CONNECTING VIRTUALLY**

ALL STAFF MEETING



INTERNSHIP ORIENTATION



FOREIGN POLICY AND
SECURITY - BOOK CLUB MEETING



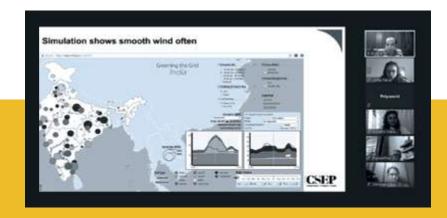
SAMBANDH INITIATIVE PAPER LAUNCH



WEBINAR



ORIENTATION



VIRTUAL MEETINGS



44

#### SENIOR RESEARCHERS



**VIKRAM SINGH MEHTA** Chairman & Distinguished Fellow



**RAKESH MOHAN** President & Distinguished Fellow



SHIVSHANKAR MENON Distinguished Fellow



MONTEK SINGH AHLUWALIA Distinguished Fellow



ANOOP SINGH Distinguished Fellow



SHISHIR GUPTA Senior Fellow & COO



**RAHUL TONGIA** 



LAVEESH BHANDARI Senior Fellow



RAJESH CHADHA Program Director



CONSTANTINO XAVIER



**SAHIL GANDHI** Fellow



DALJIT SINGH Visiting Scholar



RAJASEKHAR DEVAGUPTAPU Consultant



BHASKAR CHAKRAVORTI Non-Resident Senior Fellow



RICHARD K. GREEN Non-Resident Senior Fellow



**ANIT MUKHERJEE** Non-Resident Fellow

KRISHANU KARMAKAR

Visiting Fellow



GOPALAKRISHNAN Non-Resident Fellow

ABHISHEK KUMAR

Associate Fellow



**NEELIMA KHETAN** Visiting Fellow



PRADEEP GUIN Visiting Fellow



**KAVERI THARA** Visiting Fellow

#### RESEARCH STAFF



ANTARA GHOSAL SINGH ASHWINI NARAYANAN Research Associate

GANESH SIVAMANI

Research Assistant



Research Assistant

**ISHITA KAPOOR** 

Research Assistant



DIVYA SRINIVASAN Research Assistant

**KEVIN JAMES** 



**DEBAPRIYA SAHA** Research Associate



K. J. BASSKARAN

Head of Administration

**ADMIN & FINANCE** 

KRISHAN KUMAR SHARMA Head of Finance



**NIKHIL TYAGI** Research Analyst



MALLIKA ANAND

NITIKA NAYAR Research Assistant



MUHAMMAD TABISH PARRAY

Research Analyst

RISHABH TRIVEDI Research Assistant



NANDINI AGNIHOTRI

Research Assistant

RISHITA SACHDEVA Research Assistant



RIYA SINHA Research Associate



Research Analyst



Research Assistant



Data Analyst

#### COMMUNICATION & DEVELOPMENT



**ADITI SUNDAN** Programme Assistant



**MUKESH RAWAT** Graphic Designer



ROHAN LAIK Communications Officer



YASSER AMMAR NAQVI Development Officer



Communications Associate



# BOARD MEMBERS



VIKRAM SINGH MEHTA Chairman & Distinguished Fellow, CSEP



**RAHUL BAJAJ** Chairman, Bajaj Group



HARI BHARTIA Co-Chairman & MD, Jubilant Bhartia Group



**GAURAV DALMIA** Chairman, Dalmia Group Holdings



ADI GODREJ Chairman, Godrej Group



VIKRAM KIRLOSKAR President, CII & Chairman and MD, Kirloskar Systems Ltd.



PALLAVI S. SHROFF Managing Partner, Shardul Amarchand Mangaldas & Co



RAKESH MOHAN
President & Distinguished
Fellow, CSEP

# SUPPORT FOR IMPACTFUL RESEARCH

Institutional transition, along with a raging pandemic and consequent economic downturn together impacted fundraising and development. We looked for opportunities in this crisis. The transition allowed us to make the orbital shift towards a truly independent, Indian think tank. Fortunately, all stakeholders appreciated the change.

Generous philanthropy of our donors has been the engine that has supported our work since 2013 when we were founded as the Brookings Institution India Center. This has sustained the institution's commitment to independence, integrity and impact and makes possible its experts' efforts to provide

practical, effective solutions to the major policy challenges facing India and the world today. The initial donors comprise the Founders Circle of CSEP. As we transition to our new identity, we are launching a significant new fundraising drive in which we expect to add new donors to join the Founders Circle, who will be classified as Patrons of CSEP.

Our Patrons will be corporations, organisation, foundations as well as philanthropic individuals who are invested in the intellectual life of CSEP. Their support and contribution will help us in the next phase of our growth to provide rigorous, independent and impactful research for policymaking.

"The support and contribution of our donors powers us in the next phase of our growth to provide rigorous, independent and impactful research for policymaking."



### FOUNDERS CIRCLE

- Adi Godrej
- Aditya Birla Group
- Ajay Piramal
- Bharti Infratel Ltd.
- Baba Kalyani, Bharat Forge Ltd.
- Dattaraj V. Salgaocar
- DCM Shriram
- Gamesa Renewable Ltd.
- Gaurav Dalmia
- Geetanjali and Vikram Kirloskar
- IDFC
- JK Organisation
- Jubilant Bhartia Group

The Founders Circle is a body of eminent industry experts and community leaders actively invested in the intellectual life at CSEP Research Foundation. The names of the Founders Circle members are proudly displayed on our Donor plaque in our office. Their encouragement and support enables us to provide independent and impactful research for policymaking.

- Kiran Mazumdar-Shaw
- Mayank Singhal
- Nishith Desai Associates
- Nita and Mukesh Ambani
- Onkar S. Kanwar & Neeraj R.S. Kanwar
- Rahul Bajaj
- Sanjay Nayar
- Shardul Shroff and Pallavi Shroff
- Standard Chartered
- Sudha and Kris Gopalakrishnan
- TATA Group
- Yes Bank

# FRIENDS OF CSEP

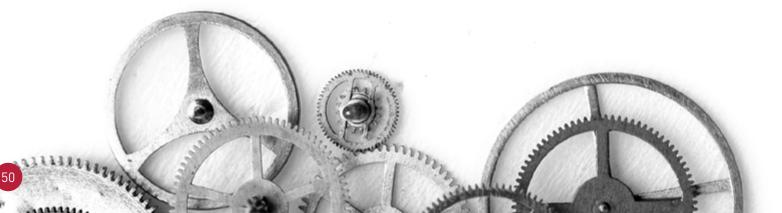
- Citi Group
- Lockheed Martin India Private Ltd.
- Narotam Sekhsaria Foundation
- Japan Bank for International Cooperation (JBIC)
- Mitsubishi Corporation India Pvt. Ltd.

### **DONORS**

- Asia Democracy Network
- Department of Foreign Affairs and Trade -Australian High Commission
- Ford Foundation
- HCL Foundation
- MacArthur Foundation
- Oak Foundation
- Omidyar Network India
- Shakti Sustainable Energy Foundation
- Tata Steel Ltd.
- Vedanta Ltd.

### **PATRONS**

As part of our new fundraising drive, CSEP expects to add new donors who will join the Founders Circle and will be classified as Patrons of CSEP. In January 2021, Walmart became CSEP's first Patron.



# FINANCIALS—

#### CSEP RESEARCH FOUNDATION

(Formerly known as Brookings Institution India Center)

#### BALANCE SHEET AS AT 31st March 2020

		As at	As at
	Particulars	31 March 2020	31 March 2019
		(Rs.)	(Rs.)
I.	EQUITY AND LIABILITIES		
1	Shareholders' Funds		
	(a) Share capital	1,00,000	1,00,000
	(b) Corpus fund	38,90,00,000	38,24,00,000
	(c) Reserves and surplus	(4,04,64,504)	(3,00,40,109)
	(,,	34,86,35,496	35,24,59,891
2	Non-Current Liabilities		
	(a) Long-term provisions	37,80,163	19,71,728
3	Current Liabilities		
	(a) Trade payables	11,90,838	10,19,687
	(b) Short term provision	66,543	28,203
	(c) Other current liabilities	4,52,56,743	4,62,15,839
		4,65,14,124	4,72,63,729
	Total	39,89,29,783	40,16,95,348
II.	ASSETS		
1	Non Current Assets		
	(a) Property, Plant & Equipment		
	(i) Tangible assets	86,14,513	1,11,98,785
	(ii) Intangible assets	11,702	45,541
		86,26,215	1,12,44,326
	(b) Long term loans and advances	2,32,05,062	1,98,32,610
		3,18,31,277	3,10,76,936
2	Current Assets		
	(a) Cash and bank balances	34,91,49,611	35,26,32,812
	(b) Short-term loans and advances	4,54,950	4,25,367
	(c) Other current assets	1,74,93,945	1,75,60,233
		36,70,98,506	37,06,18,412
	Total	39,89,29,783	40,16,95,348
	Total	3	39,89,29,783

#### **CSEP RESEARCH FOUNDATION**

(Formerly known as Brookings Institution India Center)

#### STATEMENT OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31 MARCH 2020

		Current Year	Previous year
	Particulars	2019-20	2018-19
		(Rs.)	(Rs.)
l .	Revenue from operations	8,08,82,687	6,19,98,341
ii.	Other income		
		2,21,68,691	2,52,65,269
III.	Total income (I + II)	10,30,51,378	8,72,63,610
IV.	Expenses		
	Employee benefits expense	4,73,49,244	3,30,14,178
	Depreciation and amortization expense	40,00,323	27,29,355
	Other expenses	6,21,26,206	5,26,36,019
	Total expenses	11,34,75,773	8,83,79,552
٧.	Profit before tax (III- IV)	(1,04,24,395)	(11,15,942)
VI.	Tax expense		
	Current tax	-	-
	Deferred tax	-	-
	Tax Demand of Earlier Years	-	98,780
		-	98,780
VII.	Profit for the year (V -VI)	(1,04,24,395)	(12,14,722)
VII.	Tolit for the year (V -VI)	(1,04,24,393)	(12,14,122)
VIII.	Earnings per equity share:		
	Basic and diluted	(10,424)	(1,215)
	Nominal value of equity shares	100	100





6, Dr Jose P. Rizal Marg, Chanakyapuri, New Delhi 110021, India Phone: +91-11-2415 7600







