

Centre for  
Social and  
Economic  
Progress

**CSEP**

Independence | Integrity | Impact



**ANNUAL  
REPORT  
2022**

CENTRE FOR SOCIAL AND ECONOMIC PROGRESS

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**INDEPENDENCE  
INTEGRITY  
IMPACT**

**ANNUAL  
REPORT  
2022**



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## 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 and 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).

## MESSAGE FROM THE CHAIRMAN



**Vikram Singh Mehta**  
Chairman and  
Distinguished Fellow

I would like to start on an upbeat note, and I could point to many developments within CSEP over the past year to justify such a start. But I cannot do so. For all of the positives of the past year are overwhelmed by the loss of two of the strongest supporters of first Brookings India, and then CSEP - Rahul Bajaj and Vikram Kirloskar. I could spend the rest of this note elaborating on their contribution. I will not do so. Suffice to say that from the day Brookings India was created a decade back, these two individuals were committed to the creation of an independent policy-oriented, research think tank and that without this commitment and support, Brookings India would not have grown as it did and more pertinent, the transition to CSEP would not have been as smooth and seamless as it was. We miss them both and we pray their souls rest in eternal peace.

The world is buffeted by an unprecedented set of cross cutting and complex problems – the pandemic; Ukraine crisis; climate change; US-China tensions; faltering economic growth; commodity inflation; supply chain uncertainties - one could go on. No one reason can be identified for this state of affairs. And no one silver bullet remedy can therefore be prescribed. The challenge is multidimensional and leaders must draw on every possible resource to navigate these currents.

Against such a backdrop, it would be no exaggeration to suggest that the contribution of think tanks like CSEP could not be more relevant. Its research bears directly on the issues that the world and India are grappling with and it is a matter of pride that much of the work done by CSEP scholars under the leadership of Dr Rakesh Mohan has drawn accolades from across the policy spectrum both in India and abroad. It is also a matter of pride that our Flagship Seminars that were started at the height of the pandemic to virtually debate matters that could not be ignored even as the world struggled to contain the virus, have now successfully morphed into

regular hybrid conversations. The seminars have covered a range of subjects including foreign policy, economics, energy, social change and even philosophy (as it pertains to public policy), reinforcing CSEP's reputation as a multi-disciplinary, research think tank.

During the year, Mr/Mrs Niraj Bajaj, Kiran Mazumdar Shaw, Naushad Forbes, Pallavi Shroff, Ajay Shriram and Sanjay Nayar accepted our invitation to join the Board. This was a great honour and a testament to the quality of the work that Rakesh and his team have produced. The expanded Board has encouraged CSEP to expand its research faculty in expectation that there will be an increasing call by policy makers on think tanks as they grapple with the challenges ahead. Towards that end, CSEP will embark on a major fund-raising exercise during the coming year. The success of a research entity that does not have a revenue model depends on its ability to secure the required funds.

CSEP has been built on the generosity of its Founders Circle and Patrons. They have given without asking for anything in return other than that CSEP stay true to its code of conduct to produce research that is independent, impactful and uncompromising in integrity. CSEP could not have established itself within the fraternity of public policy think tanks without such unstinting support. I thank them all for their generosity and more so, for their faith in our ability to deliver to their expectations.

**Vikram Singh Mehta**

Chairman and  
Distinguished Fellow

## MESSAGE FROM THE PRESIDENT



**Rakesh Mohan**  
President and  
Distinguished Fellow

The spectre of COVID-19 finally receded in the latter half of 2022. It was a delight to finally open our physical doors again to welcome our researchers back, many of whom had joined during the COVID period and had not met one another in person. We were then exposed in person to the wider world, through the many seminars, panel discussions, book launches, and dialogues that we hosted this year. During this transition most of these were held in hybrid mode combining the advantages of both physical interaction and wider outreach through a virtual platform. While we had managed to adapt quite well to the peculiarities of the virtual world, it was never ideal, and this year we could rediscover the vibrancy of each other's company. I have been gratified to be reminded of the values of personal interaction, the cross-fertilisation of ideas and camaraderie that develops as we work together in person, rather than the frozen individualised interaction that takes place virtually.

Consequently, it has been a busy and eventful year for CSEP as it expands and establishes itself as a credible evidence-based policy research institution that provides empirical expertise in addressing each of the issues in its wide-ranging research programme. Our lodestone remains our motto of Independence, Integrity and Impact.

The strengthening of CSEP continues to be a work in progress. Along with our research programme our faculty of scholars, both senior and younger, is expanding on a regular basis. Our globally recognised Distinguished Fellows, Shivshankar Menon, Montek Singh Ahluwalia, Anoop Singh, Jaimini Bhagwati and Vikram Mehta continue to labour on in their respective areas of work. Each of them is active in public debate through regular thoughtful op-ed articles and appearances in influential visual media, along with their research work and scholarly writing. Many of our younger researchers have now spent over two years or more at CSEP. It has been a pleasure to watch them grow and find their feet, making rigorous and insightful contributions under the guidance of

our distinguished and senior fellows. Our policy of enabling joint authorship for junior researchers with their senior colleagues has been successful in encouraging them to undertake serious policy research and writing. Our administrative and communications staff has also been strengthened to perform their functions more effectively. Finally, our finances are also improving, and we hope to achieve medium to long-term financial stability in the next couple of years. Fundraising will have to remain a continuous endeavour.

I give below the highlights of our research programme: where we are and where we want to be.

### **Climate Change, Energy and Minerals**

#### *Climate Change*

Climate change is an existential, planetary crisis unlike any other. Policy actions for mitigation of and adaptation to climate change will pervade almost all areas of economic and social policy in the years and decades to come. Accordingly, CSEP has brought research on different aspects of climate change to the top of its agenda. Our work cuts across almost all our research verticals: macroeconomic and fiscal policy, financial sector, multilateral institutions, energy, minerals, urban development, agriculture and foreign policy and security studies. In each area we are cognizant of the vast amount of research being conducted by others in India and globally. In our work we are attempting to identify niche areas where we may have comparative advantage. One of our strengths is our relatively small size that enables cross-disciplinary collaboration.

Our Distinguished Fellow, Montek Singh Ahluwalia, focuses on identifying policies that India can adopt to mitigate climate change at home, and a policy framework that it can use along with other developing countries to push climate action forward in international fora. His work highlights the importance of raising adequate

international climate finance for developing countries, including from multilateral institutions. Correspondingly, the importance of raising domestic capital has also been emphasised. Indian strategy to manage climate change includes greater horizontal coordination across ministries, and vertical coordination across levels of government in our federal structure.

Our other work on climate change focuses on the macroeconomic issues associated with the transitions. One strand of work focuses on how government finances will be impacted as non-tax and tax revenues from fossil fuels give way to other sources. Other research addresses the funds required and the avenues available to meet the large financing gaps. Yet another area seeks to study the macroeconomic implications of climate-associated transitions, how might India enable large investments while maintaining high equitable growth and the challenge of absorbing and allocating such funds. Accordingly, CSEP is developing deep modelling capacities that include Hybrid Input Output, Environmentally Extended Social Accounting Matrix, Computable General Equilibrium, and Integrated Assessment Modelling capacities that can help study the underlying complexity of the environment-economic relationship.

### **Energy**

Our work continued on multiple themes of energy supply, demand, regulation, pricing, and delivery that will arise as the energy transition accelerates. We had two major threads of effort and output. First, we conducted an in-depth study on India's electricity grid in 2030 under scenarios of high renewable energy (RE). We examined how the grid would be balanced most cost-effectively and how much, if any, growth of fossil fuel power would be required. This work highlighted the limitations of current pricing norms (levelised cost of energy) that focus narrowly on supply pricing, and which ignore not just issues of time of day, but also system level or portfolio level costs. Second, we worked extensively on electricity distribution companies (DisComs) and on overall regulation of the power sector. Questions we grappled with included new models of competition and their trade-offs, and how to empower DisComs to manage the energy transition. Several major studies on DisCom finances are throwing light on the root causes

of continuing DisCom losses. We quantified the root causes of DisCom financial losses and found that DisCom performance failures (widely called aggregate technical and commercial, or AT&C, losses) are only partly due to their internal inefficiency, whereas most of them are due to causes external to them. These causes include inappropriate pricing procedures adopted by the regulatory bodies, non-payment of dues by some major consumers like government departments, and non-timely payment of government subsidies.

### **Minerals**

Recognising the increasing importance of non-fuel minerals and mining in India, CSEP has further expanded its research programme in this area. The scope of research focuses on ensuring efficient, socially just, and environment-friendly growth of the mining sector in India, while also addressing related climate change issues. The research in 2022 highlights the need for resilient supply chains of critical minerals and projects their need for developing green technologies. The issues of exploration, royalty rates, post-lease clearances, trade and foreign direct investment have also been studied. On the normative front, the performance of spending the District Mineral Foundations funds has been evaluated for the top 12 mining states.

Our modelling work demonstrates the need for policies that reduce emissions by adopting efficient production technologies and conserving the use of coal and petroleum products. It also develops methodologies to assess impact of the clean environment cess (levied on coal sales), or any other carbon tax related measures on emissions and GDP at sectoral and national levels.

Climate change mitigation and adaptation require a high degree of mineral security, to facilitate high-tech manufacturing and to manage the transition to clean energy and electric vehicles. CSEP's unique and long standing work on critical non-fuel minerals and mining in India sheds light on this relatively under-researched but crucial area. It addresses the challenge of developing this sector in a sustainable way that aligns with environmental protection concerns and ensures the welfare of affected communities in some of India's poorest, but most mineral-rich, states.

### **Human Development**

The global spread of the COVID-19 pandemic in 2020-2022, brought a new urgency to the issues of education and healthcare across the world. Although India coped relatively well with the pandemic, after initial hiccups, it has reminded the country of the importance of improving all aspects of human development in the years to come. The loss of almost 2 years of education for students of almost all ages and incomes has highlighted the need for urgent attention to this issue. As I noted last year, health, education and overall issues of human development have suffered from notable relative neglect in India right through the 75 years of independence. Issues of public funding of nutrition, public health and education, the scope of and accountability of service delivery and the capacity of state institutions to deliver them remain key amongst many other issues that once again got highlighted through the pandemic.

Accordingly, CSEP embarked on a new multiyear work programme on health and human development in November 2021.

### **Economic Growth and Human Development in India – Inter-linkages**

This is an important study to enhance our understanding of the relationship between economic growth and human development in India. Historically, India has laid greater emphasis on economic growth, while human development has received inadequate attention. Unsurprisingly, we have found that there is a mutually reinforcing relationship between economic growth and human development in India. Differences in the level of human development at the state level explain much of the observed differences in the state-level economic growth patterns. Similarly, differences in human development at the state level can be explained by different levels of economic growth. The study, therefore, emphasises the significance of raising public expenditure on human development to strengthen and sustain the relationship over the long run. Going forward, we will research deeper into the economic growth and human development relationship and assess efficiency of health expenditure at the state level.

### **Health policy**

We dedicated time and energy in the first year on two additional broad areas of work. One examined health systems across select comparable countries to understand their policy responses to the challenges of universal health coverage. This body of work addresses key issues of health financing, supply of infrastructure and human resources and quality and accountability in services. Alongside the technical aspects within health policy and systems, our second key area of work focused on the political economy of health policy, to understand the relative neglect of the sector despite the democratic framework of India. Knowledge of the technical solutions to challenges are similar across countries and hence not the binding constraint in the delivery of health services. It is the political will to prioritise something that constitutes a key driver, and that was the rationale for our focus on exploring why healthcare has not received more political attention and resources in India.

### **Fiscal Federalism and Healthcare in India**

Though health is a state subject, the Union government has been playing an increasingly greater role, mainly through centrally sponsored schemes (CSSs). Our work attempts to improve the understanding of the role of fiscal transfers for healthcare by the union government to states in (i) defining/resetting health priorities of states; and (ii) improving state capacity and delivery in healthcare services. Designed as an embedded mixed method with both quantitative and qualitative aspects, the study finds that National Health Mission (NHM) has helped reset health as a priority in most states and contributed to improved quality of spending across states. However, overall health spending remains a low priority in states with some variations. Going forward, we will explore the factors affecting health spending at the state level.

The work programme is set to continue in its second year with deeper analysis of the political economy of health, and of state level health systems. In India's federal structure, responses to health and health outcomes vary across states, and our current work now is directed at understanding the association, if any, between different economic, governance and political contexts and their healthcare provision and status. We hope that such analysis will enable deeper thinking into differentiated policy responses across states.

## Growth, Finance and Development

### Macroeconomic Policy, Trade & Competitiveness

We have begun our work on trade and competitiveness in a modest manner. Our research analyses India's GDP growth performance between 1994 and 2020 to understand if the observed "slowdown" over the last decade or so is cyclical or structural. The study finds that structural growth drivers in terms of competitiveness have been static. Given that the outlook of global trade is not optimistic, the future of Indian economic performance in terms of higher export growth will depend on more structural reforms. So, if India is to avoid a secular growth slowdown and achieve GDP growth acceleration toward 7%-8% per annum it will need to pursue further structural reforms. For example, policy needs to encourage firms to keep growing to become globally competitive.

Among the determinants of a country's competitiveness the efficiency of its transportation networks is a key contributor. Within this context our Distinguished Fellow, Jaimini Bhagwati is studying the historical evolution of Indian railway networks from about 1850 to 1947, to examine their economic and welfare consequences. A comparison will also be made of the current state of Indian railways with other networks in Asia and around the world.

We hope to launch a more substantive research programme in trade and competitiveness in the coming year. It is thus imperative now to answer the key question – what will it take to make Indian manufacturing globally competitive, particularly in labour using sectors? Given the criticality of the question, we intend to mount a serious effort to get to the root cause of this problem, along with examination of our trade and industrial policies. This research will also include learnings from other countries like China, South Korea, Vietnam and the like in how they managed to create world-beating competitive firms, particularly large export-oriented firms.

### Macro Tracker

In 2022, we formed a "Macro Policy Committee", consisting of a group of enthusiastic young researchers at CSEP. They have created an in-house macro tracker which tracks a wide range of macro variables in India on an ongoing basis, and

in major economies such as the US, China, Brazil, Japan, and the European Union. We hope to be able to design a macro newsletter that provides insights into current macro developments on an ongoing basis. This is challenging since there is no shortage of such newsletters available from other research institutions and from investment banking and other financial institutions.

### Fiscal Governance & Architecture

In view of continuing high public debt and fiscal constraints in India, the need for reforming our fiscal architecture has assumed even greater importance. Distinguished Fellow Anoop Singh has focused on building the fiscal architecture that would help in improving India's public service delivery to aid poverty reduction, and economic growth. The work encompasses further examination of its fiscal rules, and whether the currently suspended FRBM Act needs to be further developed. We also examined the trends in fiscal marksmanship in the Centre and the states over the years, and the nature and extent of Centre-state linkages that tends to underpin state finances.

Ongoing work is documenting and analysing the transparency in central and state governments budgets, particularly related to off-budget borrowings, which impacts fiscal reporting of indicators such as debt and fiscal deficit. This body of work should provide adequate empirical analysis and policy directions for the improvement of fiscal governance in the country at both state and central levels.

2022 also saw the release of Anoop's book *Asia and the Changing Global Economy: Rebuilding Growth Potential*. This collection of essays studies fundamental issues like the complexities of the policy tradeoffs in a post-pandemic world, the drivers of sharp divergences across different countries' economic prospects, the potential of Asia, in particular India and China, to rebuild their growth potential after COVID-19, among others. The essays contain invaluable lessons for what needs to be done to sustain the international framework for global trade and investment that has worked so well since the Second World War and the role that needs to be played by official international institutions to maintain multilateral stability and cooperation.

### Financial Stability

The emergence of widespread non-performing assets in the early to mid-2010s plagued the performance of the Indian financial sector for almost a decade, leading to subdued credit growth. A proper analysis of the causes of these bad debts is therefore of great importance. Interestingly, much of the commentary on this phenomenon has lacked detailed empirical work. Our detailed analysis of this phenomenon has broken new ground and found that, apart from any possible governance issues, there were objective reasons for the emergence of these large corporate non-performing assets, in particular the significant fall in metal prices in the mid-2010s. Distinguished Fellow Jaimini Bhagwati also examined the working of the Insolvency and Bankruptcy Code which is among the groundbreaking economic reforms undertaken in the last few years. We are continuing this work and expect to make further contributions to understanding the problems that have affected the banking sector. These findings would help in the design of further financial reforms.

### Sub-national Economy

The growth pattern of Indian states has not changed much over the last 40 years: faster growing states have continued to grow fast and vice versa. What drives state growth? Our research finds robust evidence that state growth is driven by human capital, physical capital (infrastructure) and policies (like labour flexibility and growth clusters). The geographical location of states is also important, in addition to the fundamentals. This work is consistent with our other research on the connections between growth and human development.

Indian urban local bodies have been notoriously weak in both their finances and in their technical capacity to deliver essential public services. We have examined the performance of urban local bodies in solid waste management. The 15th Finance Commission had documented the lack of financial resources available to these bodies and made recommendations for the enhancement of these resources. However, following up on our research in 2021 we find that there is no systematicity between increase in expenditure and improved performance. Although this relates only to solid waste disposal, the conclusions are

important: not only do the finances of urban local bodies need strengthening, equal attention must be given to enhancing the quality of their staff and their administrative processes. Accordingly, we intend to amplify our scholarly engagement in the areas of urban governance and municipal finance going forward.

### Housing and Urban Development

Since urban areas are growing in economic and demographic importance in India we have added another strand of research focussing on housing and urban development, though in a relatively modest manner to begin with.

House prices in urban India are singularly high relative to income levels, especially in its biggest cities, thereby making housing unaffordable to a significant proportion of the population. We have attempted to understand the causes of this phenomenon by using a unique data set to study residential property prices over the last 3 decades. It is found that real estate has given returns comparable to alternative assets like stocks and gold and these returns are driven by fundamental factors like GDP growth, cost of construction, etc.

The lack of affordable and adequate housing for low-income residents continues to be a serious urban problem. This is an age-old problem encountered by all developing countries as they urbanise. Along with affordable housing, the provision of adequate basic services, along with cities becoming physically and economically resilient, are key to liveable and sustainable cities. The availability of adequate affordable housing is a knotty question that involves effective definitions of what is adequate, what is affordable and what is also feasible from an overall economic point of view, given current income levels and economic conditions. Our work is currently ongoing on this issue, and we hope to provide new policy insights as we progress with the research.

Another new strand of work that needs research is the connection between the structure of cities and climate change. Much of Indian urban form is yet to be built since the level of India urbanisation is still less than 35%. Even in existing towns and cities, built infrastructure is relatively recent. Thus, India has a unique opportunity to design climate

sustainable housing and infrastructure. This is a large question, but we hope to add this as another segment over climate change work in the future.

### Foreign Policy and Security

With the ongoing G20 Presidency, there is renewed attention on India's capacity to shape regional and global agendas. The Russia-Ukraine war, as well as growing United States-China competition have posed new challenges for Indian foreign policy. China's rapid rise and growing centrality is reshaping Asia's economic and security order with profound implications for India. Accordingly, we have closely studied the implications of a more influential China in India's own neighbourhood.

### Regional Connectivity

It will be difficult for India to deepen its engagement with the rest of Asia and the world unless it is able to create interdependence in its own periphery. CSEP's Sambandh Initiative on Regional Connectivity is producing empirical research with policy recommendations on how India can accelerate economic integration and political cooperation in and around the subcontinent. Our work plan also includes studies on the potential of more cross-border energy trade, submarine communication cables, coastal and port connectivity and railway connectivity. Other ongoing studies are focusing on India's approach to regional institutions to deal with health emergencies; on the capacity, staffing and expertise of India's diplomatic missions in neighbouring countries; and an assessment of India's economic tools and institutions for development cooperation in South Asia.

Despite intensified political tensions between India and China, India's trade volume with China overwhelms that with our four other neighbouring countries. However, there is great potential for enhancement of trade with our neighbours if transportation connectivity is improved substantially. CSEP is therefore studying the potential of trade with Nepal, Bangladesh, Bhutan and Myanmar.

### Climate Cooperation and Critical Minerals Security

As part of our overall research thrust on climate change, CSEP is adding a new foreign policy research stream on India's ambitious global climate agenda. We will assess the effectiveness of India's engagements across bilateral, mini-lateral, and multilateral frameworks to prioritise climate mitigation and achieve Net Zero targets. This new research initiative will also examine the growing scramble for critical minerals security, as an extension of our overall mining research programme. It will propose ways for India to develop national strategies and international partnerships to secure its requirements for rare earths essential to its development targets and green technological transition.

### India in Asia: Deeper Engagement

Asia is expected to incrementally contribute a higher proportion to global GDP and trade over the next couple of decades than in the past. The centre of gravity of the global economy is shifting gradually from the Atlantic Ocean towards the Indian Ocean after almost 300 years. This incremental yet steady economic change has already brought about consequences in its wake which have worldwide political and strategic ramifications.

In this context, the Centre for Social and Economic Progress is initiating what we hope will become an annual conference, which is designed to help deepen India's current and future engagement with Asia. The conference would be aimed at building and deepening intellectual engagement among experts who have government, academic, private sector or think-tank experience about the Asian region. The focus would be on economic-financial issues along with inter-weaving relationships with political and strategic developments.

### Civil Society

The last decade has been tumultuous for Civil Society Organisations (CSOs) in India. The Companies Act, 2013, which made Corporate Social Responsibility (CSR) mandatory for all companies that meet certain criteria, meant that CSO funding has undergone a massive change. In 2022, CSEP published a major piece of research called "Between Binaries: The Coming Together of For-Profit and Not-for-Profit Organisations". Authored by Neelima Khetan, Mallika Anand and Angira Shukla, this was a study designed to comprehend the actual shifts that have taken place and assess the overall experience of the for-profit and not-for-profit sectors working together.

The year also saw the publication of *Anchoring Change: Seventy-Five Years of Grassroots Interventions That Made a Difference* - a book that focuses on the many examples of hugely impactful interventions that have been made by civil society organisations. Edited by CSEP Chairman Vikram Singh Mehta, Neelima Khetan and Jayapadma RV, *Anchoring Change* attempts to shift the conversation from the failures to successes, assess whether these successes are scalable and how they can be used to create alternative, grassroots-based, sustainable development models.



**Rakesh Mohan**

President and  
Distinguished Fellow



## BOARD MEMBERS



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**RAKESH MOHAN**  
President & Distinguished  
Fellow, CSEP

## MESSAGES FROM BOARD OF DIRECTORS

I've been associated with CSEP since it was initiated and have seen its progress over the years. What stands out for me is the quality of the team and the leadership. That's what distinguishes CSEP from other think tanks. Recruiting and retaining high quality talent therefore should remain our number one priority. The cornerstones for future strategy should continue to hinge on independence, data-backed research and stakeholder engagement.

Given that India is at the cusp of a golden decade ahead, CSEP should drive the dialogue around potential weaknesses which can derail that future: fiscal stability and climate change initiatives. Both need to be tackled proactively and seriously. Alternate financing methods for climate initiatives and global best should be brought to fore, so that "green" financing becomes mainstream — tapping both local and foreign capital.

Nothing can be more important than bringing down total debt to GDP. A data-backed lens on the financing of this gap can be a key initiative by CSEP. While this government has been quite prudent in not widening the gap, the glide path to bring this down from privatisation and assets monetisation are key — and no one is better placed than CSEP in highlighting these and nudging the government ahead.

**SANJAY OMPRAKASH NAYAR**

At the outset, I would like to congratulate CSEP for establishing itself as a leading think tank in the country, soon after a smooth transition from Brookings India. Typically, think tanks take decades to build a body of research and bring credibility to their output. CSEP has been able to achieve that distinction in a short period through its in-depth research-based publications, as well by convening events that bring together the finest minds in their respective fields. I believe this has been possible by attracting outstanding talent and providing them space for undertaking independent research. All organisations depend on the quality of their people, but it is more so for think tanks. So kudos to Vikram and Rakesh for putting together such an eminent group of people.

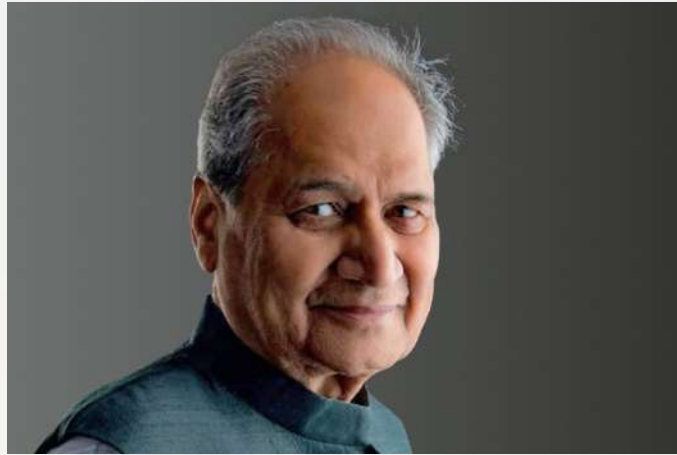
Going forward, I see CSEP fulfilling three roles. Firstly, with increasing complexities of the world we live in, CSEP can help provide research-based in-depth analyses. Secondly, governments both at the Centre and the states can gain enormously by tapping into unbiased research which can be used for policy formulation. Thirdly, if CSEP can further disseminate its knowledge to a wider audience engaged in economic and business activities, they will be able to make more informed decisions.

**AJAY SHRIDHAR SHRIRAM**

A great think tank operates at the interface of theory, research and policy. All of these are important. Deep theoretical understanding is essential to progress in every subject. Theory may not always know what the right answer is, but it can certainly tell you a lot about the wrong answers. Solid empirical research tests theory at the coal face of reality, and itself helps generate theory from the patterns that emerge in research. And converting theory and research into social and economic progress (three of the four words in CSEP's name) needs pragmatic policy. CSEP does this across a wide-range of subjects, on climate change and environmental policy, trade, regional integration, and monetary policy, among other subjects. A typical CSEP programme is rich in depth and insight. Join us as an audience for our programmes, readers of our reports, and supporters of our work.

**NAUSHAD DARIUS FORBES**

## IN MEMORIAM



### RAHUL BAJAJ

(10 JUNE 1938 – 12 FEBRUARY 2022)

The Centre for Social and Economic Progress lost a precious friend, benefactor and founder member when Rahul Bajaj, Chairman Emeritus of Bajaj Auto, passed away in the afternoon of 12 February, 2022 at the age of 83 years.

Although a man of many good attributes, the one that clearly defined him and stood out was that of courage. He always spoke truth to power irrespective of which political party was at the helm. Despite this, he earned grudging respect even from those he differed with. He was generous to a fault and contributed his valuable time and financial resources to causes that he was deeply passionate about.

In 1991, when the economic reforms unfolded, he was a part of the so-called Bombay Club that opposed liberalisation; yet he was pragmatic and sagacious enough to leverage the opportunities that this period offered. It was during this era that Bajaj Auto grew wings and made its mark globally.

He was one of the foremost Indian business leaders who promoted India overseas, especially through his involvement at the World Economic Forum. He can also be truly called one of the prime architects of the Confederation of Indian Industry (CII) and was perhaps the only person who became the President of CII for two terms.

This interest in public policy saw him not only as an Independent Member of Parliament in the Rajya Sabha but also a contributor to think tanks in India

and overseas. Prior to this, during the Rajiv Gandhi government, when it had experimented with bringing in private sector leaders to head public sector companies, he was chosen to be the Chairman of Indian Airlines. He was awarded the country's third highest civilian award Padma Bhushan in 2001.

Although Mr Bajaj wore multiple hats and was understandably very busy, he was a man of details. For example, he would personally go through every email or letter that came to him and replied to almost all of them. He was also known to be meticulous at board meetings of companies and other institutions that he was a part of. Before any meeting, he would study the previous meeting's minutes and come well prepared and ask searching questions.

Unfortunately, there was an acrimonious division of the Bajaj group with his brother Shishir and nephew Kushagra Bajaj, but he made sure that when it came to his sons Rajiv and Sanjiv, there was a perfect partition of business between them. That the two of them have grown their respective businesses many-fold is proof of the planned partition pudding.

Mr Bajaj was the grandson of Mahatma Gandhi's close confidante and freedom fighter Jarnalal Bajaj. He would often see his grandparents and parents, Kamalnayan and Savitri, being incarcerated in jail for prolonged periods. Firstborn to his parents, he wore this Gandhian badge proudly on his sleeve. Seventy-five years after Independence, when he passed away in 2022, he was perhaps one of the last Gandhian business leaders.



### VIKRAM S KIRLOSKAR

(19 NOVEMBER 1958 – 29 NOVEMBER 2022)

As 2022 drew to a close, we, at the Centre for Social and Economic Progress unexpectedly lost a distinguished member of our Board of Directors, Vikram S Kirloskar at the age of 64. During the relatively brief period that he was on our Board, he made a deep imprint and contribution through his affable nature, ideas and views on how to take our research to the next level.

Vice-Chairperson of Toyota Kirloskar Motor and Chairman and Managing Director of Kirloskar Systems Private Limited, his understanding of public policy was sharpened during his tenure as the President of the Confederation of Indian Industry (CII) and the Society of Indian Automobile Manufacturers (SIAM). This, he brought to the table at the board meetings of CSEP.

However, his biggest contribution was perhaps in shaping Indian manufacturing and shop floor by shepherding the iconic Japanese automobile company "Toyota" into the country. He had a rare and deep passion for automotive manufacturing that would have made Toyota, which pioneered the Toyota Way, proud. Not just that, he helped expand

the footprint of lean and zero-defect manufacturing, Kaizen and just-in-time in the country especially in its western regions. He also had very close relationships with Toyota's automobile supply chain manufacturers in India. A mechanical engineer from the Massachusetts Institute of Technology (MIT), perhaps his biggest legacy is in the millions of Toyota vehicles that ply the roads not just in India but even overseas.

Pune is home to many iconic business families in the country including Bajaj, Kalyanis of Bharat Forge and the Aghas of Thermax. Vikram was a part of that lineage, having been a member of the fourth generation of the century-old Kirloskar Group. He had been involved with the World Economic Forum and the Education Council of India of MIT.

Beyond business, he was a man of many interests. He was an excellent cook, a connoisseur of wine and had a fine eye for aero-modelling, painting and Indian and Western classical music.

We pay our deep sympathies and respects to Gitanjali, his wife, and Manasi, his daughter.



Growth, Finance and Development	Energy, Natural Resources and Sustainability	Foreign Policy and Security
Macroeconomic Policy, Trade & Competitiveness	Climate Change	Regional Connectivity (Sambandh)
Sub-national Economy	Minerals & Mining	Foreign Policy & Strategy
Health and Human Development	Coal, Oil & Gas	Security & Defence
Financial Sector and Development	Electricity	China
Governance & Institutions	Renewable Energy & CleanTech	European Union
Fiscal Governance and Architecture	Future of Energy	Democracy & Multilateralism
	Access & Social Contract	
	Regulations, Reforms & Pricing	
	Carbon Tracker	

INDEPENDENCE | INTEGRITY | IMPACT

29 (2022)		16 (2021)		YEAR IN NUMBERS	119 (2022)		51 (2021)				
WORKING PAPERS		DISCUSSION NOTES			OP-EDS		BLOGS				
6 (2022)		6 (2021)			17 (2022)		17 (2021)				
17 (2022)		11 (2021)		12 (2022)		13 (2021)		17 (2022)		10 (2021)	
OTHER PUBLICATIONS		FLAGSHIP EVENTS		OTHER EVENTS							



## BROWN BAGS

The CSEP Brown Bags are internal seminars, where our researchers present their work-in-progress to peers and seek feedback. These lively, informal sessions engender free discussion and debate. CSEP held 20 Brown Bag seminars in 2022, where scholars shared original research on topics ranging from the impact of climate change on agriculture, fiscal marksmanship of capital expenditure, India's rail connectivity, health systems in different countries, India's diplomatic capacity in the neighbourhood, economic growth and human development, and India's energy goals, among others.

## HIGHLIGHTS OF 2022

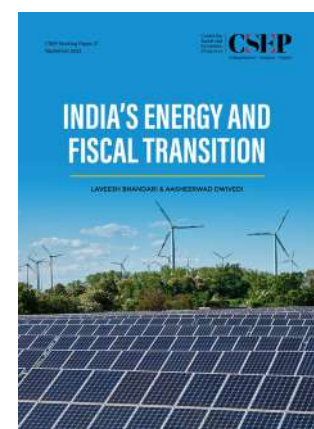
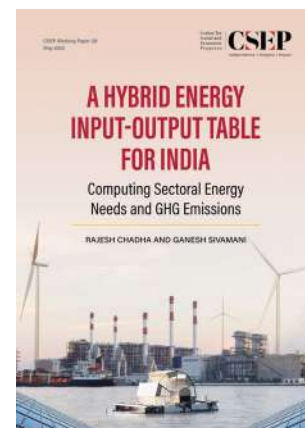
### RESEARCH ON CLIMATE CHANGE AND ENERGY

Climate change no longer seems like a long-term problem. This year had more severe and a higher number of natural disasters than previous years, all across the world. These events, along with the issue of the unavailability of climate finance to developing countries, were at the centre of the discussions at the annual UN climate change conference, COP27, in Egypt, held in November 2022. CSEP did substantial work on climate change in 2022. Our papers comprehensively laid out a climate change strategy for developing countries, especially India, examined the challenges in financing climate change action, and discussed the expected energy transition and its implications, among other significant research. Here are some highlights.



The CSEP Working Paper titled [Financing Climate Change Mitigation and Adaptation in Developing Countries](#) by Montek S Ahluwalia and Utkarsh Patel discusses the issue of climate finance and what developing countries must do to raise the requisite amount of capital. It is understood based on a review of the estimates of global investment requirements for climate change mitigation and adaptation that developing countries will require investments in the order of trillions of dollars annually, as against the promise of \$100 billion per year that is yet to be fulfilled. The authors argue that developing countries cannot realistically expect that all the required amount would come from international sources. At least half of the amount will need to be mobilised domestically, while the rest can come from bilateral and multilateral sources.

The Working Paper [A Hybrid Energy Input-Output Table for India](#) by Rajesh Chadha and Ganesh Sivamani computes the direct and indirect energy consumed and emissions produced by the economy's intermediate production and final-use sectors by constructing a 34-sector hybrid energy Input-Output Table (EIOT). The EIOT contains ten energy sectors: coal and lignite, biomass, crude petroleum, natural gas, combustible petroleum products, non-combustible petroleum products, coal electricity, other thermal (natural gas and petroleum products) electricity, large-scale hydro-electricity, and renewable energy sources and nuclear electricity. The paper suggests that policies are needed to reduce emissions by adopting more efficient production technologies and conserving the use of coal and petroleum products.



In the Working Paper [India's Energy and Fiscal Transition](#), Laveesh Bhandari and Aasheerwad Dwivedi look at the country's expected energy transition towards a low-carbon future, and study how government revenues from fossil fuels will be affected over the next two decades. The authors take the International Energy Association (IEA 2021) scenarios for India and study how both tax revenues and non-tax revenues for national (Central) and sub-national (State) governments would be affected. The paper also briefly discusses the possible impact of Net Zero and carbon taxes were India to take that route, as well as how subsidies are expected to impact and be impacted by such considerations.

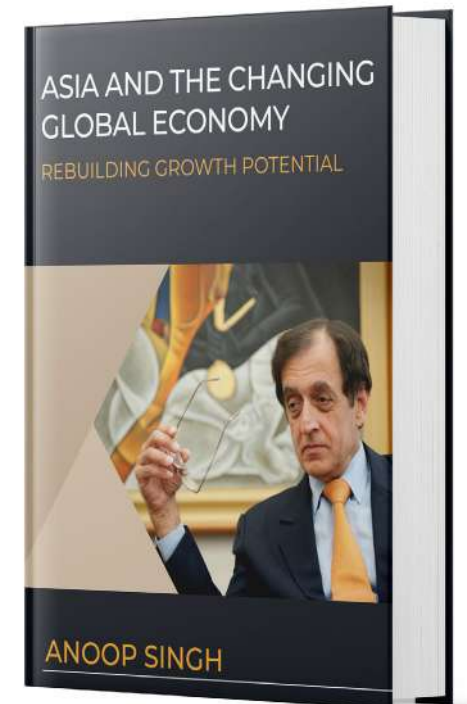
### CSEP BOOKS IN 2022

2022 saw the publication of two books by CSEP scholars - *Asia and the Changing Global Economy: Rebuilding Growth Potential* by Anoop Singh and *Anchoring Change: Seventy-Five Years of Grassroots Interventions That Made a Difference*, edited by Vikram Singh Mehta, Neelima Khetan and Jayapadma RV.

#### ASIA AND THE CHANGING GLOBAL ECONOMY: REBUILDING GROWTH POTENTIAL

With the global economy experiencing an uneven recovery from the pandemic, what are the complexities of the policy tradeoffs ahead? What are the drivers of sharp divergences across different countries' economic prospects? Will Asia be able to rebuild its growth potential in a post-pandemic world, especially India and China?

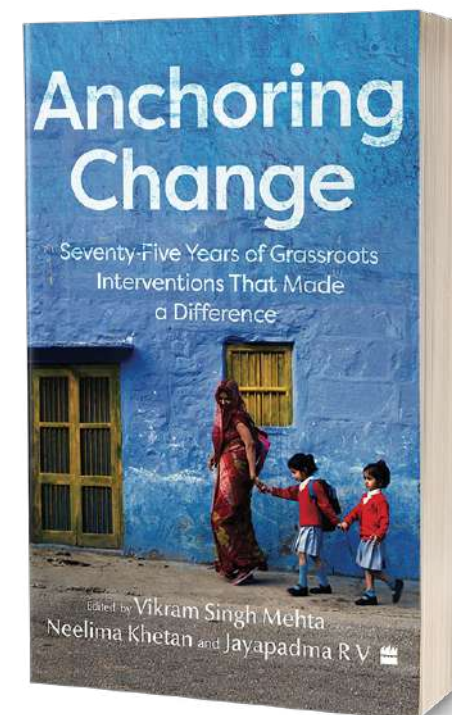
[Asia and the Changing Global Economy: Rebuilding Growth Potential](#), authored by Anoop Singh, looks at fundamental issues from several perspectives in today's complex global economy and provides invaluable lessons for what needs to be done to sustain the international framework for global trade and investment. The book also emphasises the role that needs to be played by official international institutions to maintain multilateral stability and cooperation.



#### ANCHORING CHANGE: SEVENTY-FIVE YEARS OF GRASSROOTS INTERVENTIONS THAT MADE A DIFFERENCE

All too often, the focus of conversation in India is on our failure as a socio-economic polity. We despair about our inability to realise our full potential as a country: we find fault with our political system, the leadership, the state of our institutions, the economic model and much else. What we do not do is reflect on the micro successes and the many examples of hugely impactful interventions that have shifted the needle of society in positive directions. We do not ask the questions: what were the ingredients of these successes? Are they scalable? Are there learnings from these that could be applicable elsewhere in India, and might these learnings provide the guts for a new developmental model?

[Anchoring Change: Seventy-Five Years of Grassroots Interventions That Made a Difference](#) attempts to answer these and several other such questions, through accounts of organisations from across India, spanning the seventy-five years since Independence. The idea is to revisit these examples of civic action and explore their relevance for the future of India.



## THE GLOBAL PERSPECTIVE

In a world that is more interconnected than it has ever been before, perspectives from across the globe are crucial. One of the biggest events of 2022, which affected the entire world, was the Russia-Ukraine war. CSEP held a number of discussions around this global event to assess its impact on India and the rest of the world.



### THE RUSSIA-UKRAINE WAR AND ITS GLOBAL IMPACT

In April 2022, as the Russia-Ukraine crisis escalated and countries reassessed their responses, CSEP launched the first episode of In Dialogue, a discussion series with experts on affairs of national and global importance. Shivshankar Menon, Distinguished Fellow, and former National Security Advisor (NSA), spoke to Constantino Xavier, Fellow about the Russia-Ukraine crisis, India's stand, and the implications in the Indo-Pacific region.

The discussion centred around how the Russia-Ukraine war poses a particular challenge for India's geo-strategic calculus as New Delhi remains close to Moscow and is also a part of the Quadrilateral Security Dialogue (QUAD) with the US, Australia, and Japan. Shivshankar Menon also reflected on the history of the international conflicts involving Ukraine and Russia, the logic of India's past responses and current options to deal with disruptions to trade, energy and geopolitics.



### HOW RUSSIA'S INVASION OF UKRAINE HAS TRANSFORMED THE WORLD

The Russian invasion of Ukraine was a world-transforming event in 2022. In the short run, it caused significant economic turmoil, especially in global energy and food markets. It also caused the imposition of an unprecedented array of economic sanctions, especially the freezing of substantial Russian foreign currency reserves. Not least, it re-united the high-income democracies against Russia. Yet the longer-term implications could be even more important, including the end of the post-Cold War era and the emergence of a new Cold War between China and Russia and the West. What do these transformations mean for India and how should it respond?

This important question was discussed in a CSEP Flagship Seminar featuring Martin Wolf, Chief Economics Commentator at the Financial Times, London; Shivshankar Menon, Distinguished Fellow, CSEP and former National Security Advisor; Montek Singh Ahluwalia, Distinguished Fellow, CSEP and former Finance Secretary in the Ministry of Finance; and Shekhar Shah, former Director General of the National Council of Applied Economic Research. The conversation was moderated by Rakesh Mohan.



### INTERVIEW WITH RUSSIAN AMBASSADOR, DENIS ALIPOV

The cruciality of the Russia-Ukraine conflict and its impact on the world was highlighted when CSEP hosted a conversation between Russia's ambassador to India, Denis Alipov and Distinguished Fellow, CSEP Jaimini Bhagwati. The discussion was titled "India's Economic-Classified Ties with Russia and Prognosis about the Conflict in Ukraine". Recalling the technological and economic collaborations between the two countries, the nuclear power cooperation between Russia and India was also discussed, with a special focus on the Kudankulam project. The India-Russia alliance in the defence sector was also underlined with the Russian ambassador re-emphasising India's role as a major defence partner for Russia. The discussion also referred to the hitherto relatively limited trade and investment ties between India and Russia.

Denis Alipov presented Russia's perspective on the war, defending his country's actions and answering crucial questions posed by Jaimini Bhagwati on the tragic loss of lives in this conflict.



### INTERVIEW WITH UK HIGH COMMISSIONER, ALEX ELLIS

On 24 June, 2022, Distinguished Fellow, CSEP Jaimini Bhagwati held a conversation with Alex Ellis, British High Commissioner to India. The discussion focused on India-UK bilateral relations as well as other sensitive issues of international importance. The conversation centred around the negotiations between India and the UK on a free trade agreement as well as collaborations in specialised areas of defence, digital connectivity and clean air.

The grimness of the lives lost in the Russia-Ukraine war and its impact on the global economy were also discussed, focusing on the urgent need to get Russia and Ukraine to the negotiating table and for all countries, including the West, to work towards an early cessation to the conflict. While the absence of the UK from the QUAD and the Indo-Pacific Economic Forum were mentioned by Jaimini Bhagwati, Alex Ellis pointed out that the UK was part of AUKUS - the trilateral security pact between Australia, the United Kingdom, and the United States and has interests in the Indo-Pacific region. The discussion ended with the UK High Commissioner noting that India-UK relations have wider and continuing relevance in regional and global groupings.

## FLAGSHIP DIALOGUES

In 2022, CSEP launched its Flagship Dialogues series. Two of the most interesting discussions as part of this series focused on Gandhi and the concept of patience and on the cornerstones of good governance and policy making.



### GANDHI'S PATIENCE: A CONVERSATION BETWEEN A POLITICAL PHILOSOPHER AND A BIOGRAPHER

CSEP's first Flagship Dialogue was a unique conversation between philosopher, Uday Singh Mehta and biographer and historian, Ramachandra Guha on the concept of patience in Mahatma Gandhi's thoughts and writings.

In a modern world that is wedded to "hurrying up", what would it mean to slow down? This was a question that mattered to Mahatma Gandhi and it was a central part of his critique of modern civilisation. The conversation on "Gandhi's Patience" explored the significance and stakes of patience in contemporary times.

The ensuing discussion was rich in history, intriguing and greatly engaged the present audience. Uday Singh Mehta and Ramachandra Guha discussed the importance and implications of patience in Gandhi's life connecting patience to interiority. The discussion forayed into the domains of gender equality, violence and its relationship with patience and the relevance of patience in today's world.



### A LESSON IN GOVERNANCE AND POLICY MAKING

One of the most interesting events hosted by CSEP in 2022 was a Flagship Dialogue between two of India's most experienced civil servants and policymakers - 'Venu' YV Reddy and NK Singh. It has been over thirty years since the 1991 economic reforms. While the policy and political aspects of those reforms have been captured in many fora through books and other platforms, the personal stories of bureaucrats who led the way in these landmark reforms have been few and far between.

The fascinating and rare dialogue explored their rarely heard personal stories, going beyond their careers to discuss their personal journeys and views on the future of civil service in India. With illustrious careers spanning about six decades each, the two speakers represent a generation of bureaucrats who were torchbearers in India's post-Independence history. They were batchmates from the 1964 batch of the Indian Administrative Service and Chairmen of successive Finance Commissions. The anecdotally-rich conversation continues to be a must-watch for those interested in the art and science of policy making.

## GLOBAL SEMICONDUCTOR INDUSTRY - INDIA'S PATH FORWARD

The semiconductor industry was first seeded in the Silicon Valley in the late 1960s and it has now spread across the globe. The industry commands about \$600 billion in annual revenue. In the Fabless segment, the US and South Korea lead, while in the Fab segment, Taiwan and South Korea lead in frontend technology, while China and Taiwan dominate the backend. Semiconductors have become a major factor in global geopolitics due to their commanding strategic value. The US is now using multiple levers to slow the rise of the Chinese semiconductor industry. India is taking its first steps to participate in this industry by launching the Semiconductor Mission.

In December 2022, CSEP hosted a special discussion on the "Global Semiconductor Industry - India's Path Forward". Member of the Advisory Committee for Semicon India, Arogyaswami Paulraj provided detailed insight into the history of the semiconductor

industry, covering its inception, growth trajectory, the companies that became prominent in the various segments of the semiconductor expanse, and the market share of leading countries in the industry. The event was chaired by Vijay Kumar Saraswat, Member, NITI Aayog and Advisory Committee for Semicon India, and Chancellor, JNU. Ajai Chowdhry, Founder, HCL Technologies and Member, Advisory Committee for Semicon India; and Banmali Agrawala, President, Infrastructure, Defence and Aerospace and Global Corporate Affairs, Tata Sons Private Ltd were the discussants.

The discussion highlighted how the biggest gap in the growth of the semiconductor industry in India is the lack of R&D capability. The discussion also highlighted how the semiconductor industry in India could pan out in the near future thereby positioning the country as a major player in the electronics value chain.



# GROWTH, FINANCE AND DEVELOPMENT

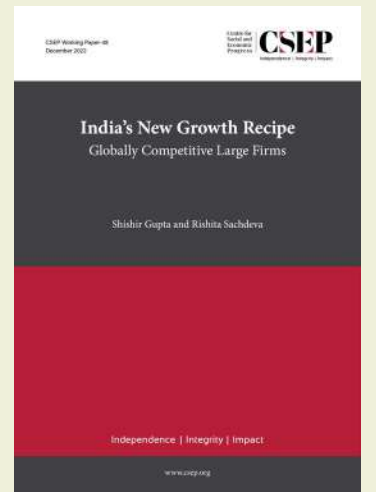
India needs to accelerate growth, create gainful employment, and improve delivery of core services to improve quality of life for a large section of its population. Independent, credible, and actionable research conducted for the broader good goes a long way in creating an environment of change. The Growth, Finance and Development vertical is committed to these ideals, and our work aims to play a meaningful role in bringing positive change to people's lives.



## MACROECONOMICS, TRADE AND COMPETITIVENESS

Shishir Gupta and Rishita Sachdeva analyse India's GDP growth performance between 1994 and 2020 in their Working Paper [India's New Growth Recipe: Globally Competitive Large Firms](#). The idea behind this paper is to understand if the current "slowdown" is cyclical or structural. The study explains economic growth in terms of 3 core drivers: economic reforms, global economic environment and the business cycle.

Economic reforms are the most structural lever; they improve competitiveness by letting efficient firms become a bigger share of the economy, and in the process enabling the domestic economy to participate more actively in global trade, pushing growth even further. However, competitiveness has been static and the outlook of global trade is not benign anymore. Thus, the authors argue that India will have to work harder even to match historical growth performance. India is at an inflection point in its economic journey; if unaddressed, the economy could slide down with the global economy and GDP could grow at about 5.5% per annum over the next 5-7 years, or could reform and sprint ahead with GDP growth closer to 8% per annum. The paper maintains that sustaining faster growth over the long term requires India to improve competitiveness. Since large firms play a salient role in pushing competitiveness and exports, India needs to focus attention on making its large, formal firms globally competitive.



### MACRO RESEARCH TEAM

In 2022, a group of young researchers at CSEP created an in-house macro tracker with the aim to provide a comprehensive view of the national and international global economic environment. The tracker covers a wide range of macro variables in India and in major economies such as the US, China, Brazil, Japan, and EU. Using the tracker, on a monthly basis, the team, known as the Macro Policy Committee, reports interesting key insights regarding macroeconomic developments nationally and internationally. Along with this, they identify key trends and patterns of important variables to form an understanding of what to expect going forward on important factors such as trade, investment, GDP growth, etc. Their findings and analyses are shared with the entire staff, resulting in engrossing discussions. This has been helpful in creating a repository of key developments as well as keeping the entire staff updated on recent happenings.

### ONGOING WORK

- In 2022, our Working Paper *India's New Growth Recipe: Globally Competitive Large Firms*, made an unequivocal case for India to develop globally competitive large firms to ensure the country stands up to global headwinds and maintains a respectable growth trajectory over the medium term. It is thus imperative now to answer the key question – what will it take to make large Indian firms globally competitive? At one level, the answer is obvious – reform land and labour markets and bring down the capital and logistics cost to make large Indian firms globally competitive. However, if these were indeed the binding constraints, then how do we still have some world beating companies, especially in the services and capital-intensive sectors? Given the criticality of the question, we intend to mount a serious effort to get to the root cause of this problem to be able to come up with sharp and actionable recommendations, which also includes learnings from other countries like China in how they managed to create world-beating large firms.

## EVENTS

Our first Flagship Seminar in 2022 was the book launch and discussion of [“The Struggle and the Promise: Restoring India’s Potential”](#), authored by Naushad Forbes, who is also on the CSEP Board of Directors. The book tries to answer some critical questions concerning India’s progress and provides a logical, actionable blueprint for getting the balance right between industry, institutions and policy. The seminar featured Naushad Forbes; Kiran Mazumdar-Shaw, Executive Chairperson of Biocon Limited; Arvind Panagariya, Jagdish Bhagwati Professor of Indian Political Economy at Columbia University; and Montek Singh Ahluwalia, Distinguished Fellow, CSEP. It was moderated by Rakesh Mohan.



A discussion on the IMF Working Paper by Surjit S Bhalla, Karan Bhasin, and Arvind Virmani - [Pandemic, Poverty, and Inequality: Evidence from India](#) was convened in May 2022. Surjit Bhalla, Executive Director for India, Sri Lanka, Bangladesh and Bhutan at the IMF presented the study. Arvind Virmani, Chairman of the Foundation for Economic Growth and Welfare (EGROW), responded to questions from the discussants - Santosh Mehrotra, Visiting Professor at the Centre for Development, Bath University, UK; and Pronab Sen, Country Director, International Growth Centre's India Programme.



## SUB-NATIONAL ECONOMY

Over the last two years, CSEP has focused on sub-national economy as one of its priority areas, examining the key role that local governments play.

Shishir Gupta and Rishita Sachdeva’s Discussion Note [Revisiting the role of funding: Lessons from expenditure and performance on cleanliness in an inter-temporal setting](#), compares expenditure on Solid Waste Management (SWM) and cleanliness performance for 11 municipalities, concluding that there is no systematicity between increase in expenditure and improved performance. This Discussion Note reinforces the findings of the scholars’ 2021 Working Paper which had analysed the outcome and performance of 27 municipalities for the year 2016.



### NOTABLE PUBLICATIONS

- CSEP Non-Resident Fellow Sahil Gandhi, Non-Resident Senior Fellow Richard K Green and Shaonlee Patranabis examine the housing paradox of high costs and high vacancy rates in India in a publication in Science Direct’s *Journal of Urban Economics*. The authors show how insecure property rights in India, as a result of rent control and weak contract enforcement, increases vacancy rates. The authors estimate that a policy change in rent control laws would have a net welfare benefit and could reduce India’s housing shortage by 7.5%.

### ONGOING WORK

- The growth pattern of states has been sticky since at least the 1980s; faster growing states have remained faster growing and vice versa. Though the pattern has remained the same, the dispersion has gone down significantly, from around 4x in the 1980s to 1.2x post the 2000s, between the fastest and the slowest growing states. The question is, what makes one state grow faster, and another, slower? This ongoing study finds robust evidence that state growth is driven by human capital (like tertiary education), physical capital (like road density) and policies (like labour flexibility). Economic geography plays a key role, provided fundamentals are taken care of. The message is loud and clear that there is no magic wand which enables some states to continually perform better. It is driven by strong fundamentals.



## HEALTH AND HUMAN DEVELOPMENT

Initiated in 2021, the Health and Human Development program at CSEP has grown tremendously over the last one year. The program has two broad strands - one focusing on the link between human capital development and growth, and the other on health policy. In the year 2022, CSEP produced in-depth work on health policy issues.

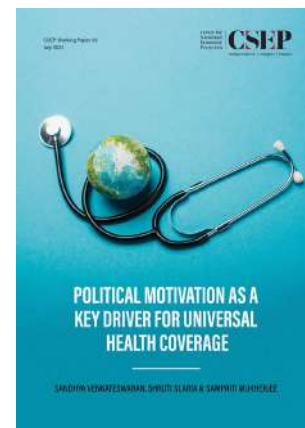
CSEP's health policy work has three components. The first focuses on a set of diagnostic analyses of India's health systems and policy. The Working Paper [Health Status in India: Challenges and Opportunities](#) by Sandhya Venkateswaran is a consolidation of existing research, which helped us identify gaps in analysis and surface research needs.

The work on health in India was complemented by the second component which includes an [analysis of health systems in six comparable countries](#), with a view to surfacing insights on innovations and reforms that can contribute to universal health coverage. The six countries analysed are Turkey, Brazil, Mexico, Thailand, Indonesia and China. Discussions were built upon these papers in the form of two webinars, which included key global experts and senior policy makers.

The third component of CSEP's work in this field includes a focus on the politics of health. The Working Paper [Political Motivation as a Key Driver for Universal Health Coverage](#) by Sandhya Venkateswaran, Shruti Slaria and Sampriti Mukherjee focuses on the political motivation of health reforms across nine countries. This analysis was also published in a peer reviewed journal called *Frontiers in Public Health*.

Another paper, [The Political Journey of Healthcare in Select Indian States](#) by Sandhya Venkateswaran, Mayank Mishra and Nikhil Iyer looks at the political journey of attention to health in five Indian states. Given the wide variations in how health is prioritised, across India and other countries, the analyses aim to understand the incentives of political leaders in accordance with priority to health and how such incentives could be shaped. Both these papers have been done in collaboration with Fellows of the Lancet Citizens Commission on Reimagining India's Health System, of which Senior Fellow, CSEP Sandhya Venkateswaran is a Commissioner.

The Health team is also working in cooperation with India's G20 Secretariat, to make the process of developing the global health priorities for India more inclusive. A webinar on [Global Health Priorities for G20: Insights from South East Asia](#) was held in cooperation with the Secretariat with speakers from South East Asia to mobilise their input and perspectives on global health. The event was chaired by India's G20 Sherpa, Amitabh Kant.



## ONGOING WORK

- An ongoing study on *Fiscal Federalism and Health* explores the relationship between the Centre and the states in healthcare financing. The key focus of the study is on understanding the role of Centrally Sponsored Schemes (CSSs) in (i) defining/resetting health priorities of states; (ii) improving state capacity and delivery in healthcare services; and (iii) identifying constraints faced by states in delivering effective healthcare services. The study is designed as an embedded mixed-method with both quantitative (health-related data) and qualitative (detailed interviews with state and central government officials of six states) aspects.
- Given the primacy of the health workforce in any health system, and the significant challenges faced in India in this regard, another ongoing study entails an analysis of medical education. The study focuses on the supply, distribution, quality and financing of medical education, to inform thinking on addressing health workforce challenges in the country.
- CSEP scholars are also working with King's College, London and Centre for the Study of Developing Societies (CSDS) to understand citizen priority to health, and the extent to which health drives electoral priorities. A citizen survey was undertaken to understand citizen perceptions of health and why a greater push from citizens for better health services does not exist in the country. This report is under preparation.
- An ongoing paper on *Evolution of Health Schemes in India* traces the history of health policies/schemes in India since 1983. The thrust of the paper is on clearly understanding Indian health policies/schemes as they evolved over time, their financing arrangements, as also their achievements and deficiencies in terms of key health outcomes.
- In the human development sphere, a forthcoming paper on *Economic Growth and Human Development in India: Interlinkages* examines the key aspects of the relationship between economic growth and human development at the all-India and the state levels. It also examines why economically poor states continue to lag in comparison with economically well-off states.

## HEALTH ADVISORY COUNCIL

- **Sujatha Rao**, former Union Secretary of the Ministry of Health and Family Welfare, Government of India
- **Girija Vaidyanathan**, Former Tamil Nadu Chief Secretary
- **Amarjeet Sinha**, Former Secretary, Rural Development, Government of India
- **Nachiket Mor**, Visiting Scientist at The Banyan Academy of Leadership in Mental Health and Senior Research Fellow at the Centre for Information Technology and Public Policy (CITAPP) at IIIT Bangalore
- **Indrani Gupta**, Professor and Head, Health Policy Research Unit (HPRU), Institute of Economic Growth, Delhi
- **Sudipto Mundle**, Emeritus Professor and Member of the Board of Governors of the National Institute of Public Finance and Policy (NIPFP), New Delhi
- **Srinath Reddy**, Honorary Distinguished Professor at the Public Health Foundation of India (PHFI) and Former President, PHFI
- **CK Mishra**, Former Secretary, Ministry of Health and Family Welfare and Ministry of Environment, Forest and Climate Change, Government of India
- **Rifat Atun**, Professor of Global Health Systems at Harvard University and the Faculty Chair for the Harvard Ministerial Leadership Program
- **Cristian C Baeza**, Executive Director, International Center for Health Systems Strengthening (ICHSS) and Former Director of the Health, Nutrition and Population Practice
- **Jeffrey S Hammer**, Charles and Marie Robertson Visiting Professor of Economic Development, Woodrow Wilson School, Princeton University, USA
- **Rakesh Mohan**, President and Distinguished Fellow, CSEP

## EVENTS

CSEP hosted two Health System Dialogues, held in the month of August, which focused on strengthening primary healthcare in India by drawing on the experiences of other countries and the different routes that health insurance takes in various countries to achieve universal health coverage.

The webinar on "Health Insurance for Universal Health Coverage: Enabling and Constraining Factors for Integration of Health Services" focused on China, Indonesia and Thailand, which have taken the insurance route towards attaining universal health coverage. The aim of the discussion was to distil learnings and insights from these countries' experiences for India. The panel of experts consisted of Winnie Yip, Professor of Global Health Policy & Economics, Harvard T.H. Chan School of Public Health; John C Langenbrunner, Senior Advisor for Financing and Health Insurance; and Nachiket Mor, Visiting Scientist, The Banyan Academy of Leadership in Mental Health. CSEP Fellow Madhurima Nundy was the moderator.



The second Health System Dialogue was called "Strengthening Primary Healthcare: A Cross Country Dialogue". Primary healthcare is reactive and fragmented in many parts of the world. This discussion focused on a cross country sharing and distillation of insights on strengthening primary healthcare systems. The panel of experts featured Vinod Paul, Member, Health, NITI Aayog; Sujatha Rao, Former Secretary, Ministry of Health and Family Welfare; Rifat Atun, Professor of Global Health Systems, Harvard University; and Erno Harzheim, Former Secretary of Primary Health Care, Government of Brazil. The session was moderated by CSEP Senior Fellow Sandhya Venkateswaran.



**Jaimini Bhagwati**  
Distinguished Fellow

## HISTORY, WORLD ORDER AND THE FINANCIAL SECTOR

A healthy financial sector is a necessary precondition for sustainable rates of high economic growth in any country. In this context, a CSEP Working Paper titled "Insolvency and Bankruptcy Code (IBC) and Long-Term Bulk Lending in India" was issued at the end of January 2022. Separately, a study has been initiated on goods trade volumes and surface transportation linkages between India and its immediate neighbours to its East and North, namely China, Nepal, Bhutan, Bangladesh and Myanmar. The objective is to identify which routes and modes have been the most used and the corresponding implications for the future.

Railways is currently the largest formal sector employer in India. It is often the case that looking back in time helps in better understanding the inevitable trade-offs in making large investments in the future. As such, a study has been undertaken on the underlying causal reasons and consequences of the building of Indian Railways from about 1850

till 1947. This effort includes identifying which are the critical elements out of the masses of historical information even as the relevant tomes are difficult to access.

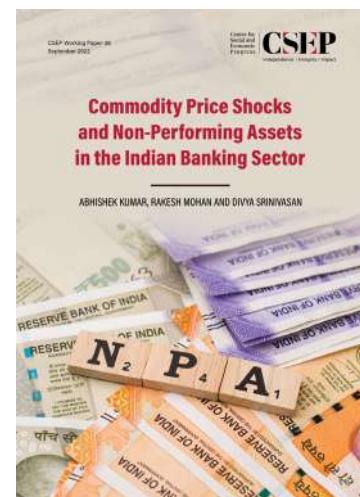
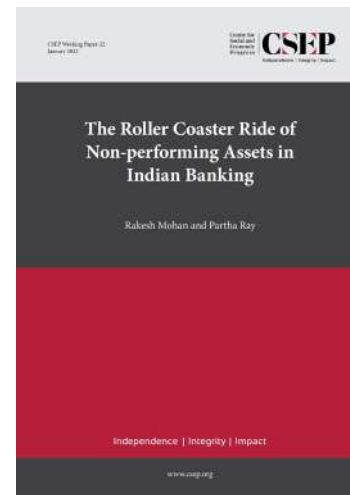
The conflict in Ukraine started in the last week of February, 2022. The West, namely the G7 countries, have led an effort to vilify Russia for a so-called unprovoked military attack on a much smaller neighbour. The UK has been at the forefront of a concerted move which has been led by the US to isolate Russia both diplomatically and economically. India has close economic and strategic relationships with G7 countries and Russia. To better understand the Western and Russian points of view, two separate dialogue sessions were held in CSEP's premises with the Delhi-based UK High Commissioner and Russian Ambassador. The recordings of these two conversations have been placed in the public domain by CSEP.

## ONGOING WORK: INFRASTRUCTURE AND REGIONAL DEVELOPMENT

- *Indian Railways - an Unfinished Revolution:* The paper will examine the setting up of the railway networks in India, from about 1850 to 1947, and the economic and welfare consequences. The causal factors that drove the considerable financing that was required will also be studied. This paper will also compare the growth of railways in India with how railway networks grew in Asia, Europe and North America. An overview comparison will also be made of Indian railways as it stood in 2020 with similar networks in Asia and around the world.
- *India's Trade and Surface Transportation Linkages with Neighbours:* India's trade volume with China overwhelms the same number with four other neighbouring countries - Bangladesh, Myanmar, Nepal and Bhutan. However, currently and potentially, there are lower cost and less time taking surface transportation routes between India and the four smaller countries. To that extent this study focuses more on the potential with the three SAARC countries, Nepal, Bangladesh and Bhutan and the Association of Southeast Asian Nations (ASEAN) member country Myanmar.

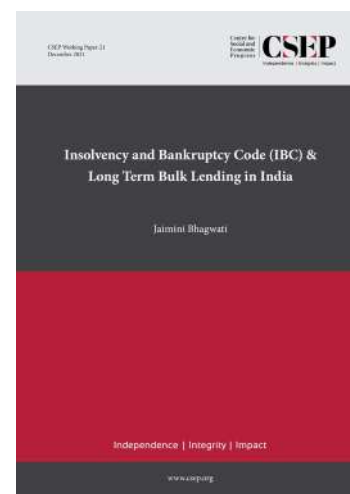
## FINANCIAL SECTOR AND DEVELOPMENT

The Working Paper [The Roller Coaster Ride of Non-performing Assets in Indian Banking](#) by Rakesh Mohan and Partha Ray narrates the story of the uneven journey of NPAs in the Indian banking sector over the period 1992-2020, identifying three distinct phases of intertemporal broad trends. First, since the initiation of financial sector reforms till about the beginning of the North Atlantic Financial Crisis (NAFC), NPAs showed a consistent downward trajectory. Second, during 2008-09 through to 2017-18, they showed a distinct spurt. Third, since 2017-18, NPAs have been on a downward trend till 2019-20, until the economic disruptions caused by COVID-19. The authors argue that while the pandemic and some of the associated policy measures could reverse the recent downward trends in NPAs temporarily, more durable policy initiatives like bankruptcy reforms are expected to make significant positive changes in the NPA situation of Indian banks.



In the last decade, the Indian banking sector experienced a sharp increase in the amount of non-performing assets (NPAs). This, in turn, worsened the capital ratios for banks and adversely affected credit growth, resulting in a slowdown in the GDP growth rate in the late 2010s. The Working Paper [Commodity Price Shocks and Non-Performing Assets in the Indian Banking Sector](#) by Abhishek Kumar, Rakesh Mohan and Divya Srinivasan argues that the decline in global commodity prices during 2011-16 led to a deterioration in the profitability of non-financial firms and adversely affected their loan repayment capacity. This strained the balance sheets of banks and precipitated the twin balance sheet crisis. However, the last two years have been very good for commodities, with non-energy commodity prices increasing by more than 50%. Despite one of the worst pandemics in recorded history, the NPA ratios have been declining and improved to a six-year low of 5.9% in March 2022. This has been followed by a surge in credit growth. The authors argue that overall, the banking sector seems to be moving into a lending cycle after a decade of stagnated credit growth.

In a Working Paper called [Insolvency and Bankruptcy Code \(IBC\) and Long-Term Bulk Lending in India](#) Jaimini Bhagwati examines the effectiveness of the 2016 Insolvency and Bankruptcy Act (IBC) as the most recent legislation to enable quicker resolution of disputes between borrowers and lenders thus encouraging higher volumes of long-term lending. The paper suggests that in addition to tightening of banking sector regulations for defaults, court processes need to be expedited since such delays can overwhelm all other efforts to conclude timely resolution of bankruptcies. Lengthy bankruptcy resolution makes bulk long-term project financing unviable for lenders and the Indian economy pays a significant price in terms of foregone growth.



As the global economy slows down and with growth-inflation dynamics remaining challenging in India, Rakesh Mohan, President and Distinguished Fellow, CSEP reflected on the state of the Indian economy as 2022 came to a close. He argues that in a less supportive global environment, improvement in competitiveness is the key to boost exports. A confluence of healthier corporate and bank balance sheets, a high capacity utilisation rate and buoyant equity markets could propel private investment over the next few years. The video can be accessed from the CSEP website.



## NOTABLE PUBLICATIONS

- Market Volatility, Monetary Policy and the Term Premium, Abhishek Kumar, Sushanta Mallick, Madhusudan Mohanty, Fabrizio Zampolli, *Wiley Online Library, Oxford Bulletin of Economics and Statistics*, August 2022
- Bank Credit Risk and Macro-prudential Policies: Role of Counter-cyclical Capital Buffer, Nadia Benbouzid, Abhishek Kumar, Sushanta Mallick, Ricardo M Sousa, Aleksandar Stojanovic, *Journal of Financial Stability, Science Direct*, October 2022
- What Drives Indian Inflation? Demand or Supply, Ashima Goyal, Abhishek Kumar, *Indira Gandhi Institute of Development Research*, September 2022

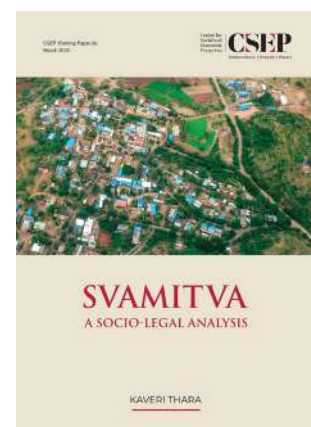
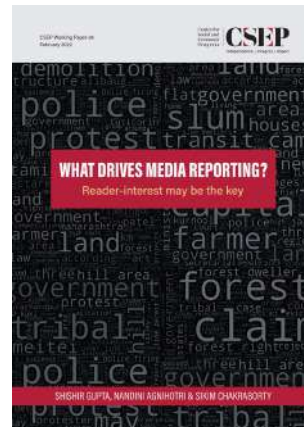
## ONGOING WORK

- *Commodity Prices and Twin Balance Sheet Crisis*: For macroeconomic policy, the decline in the price of one sector is of little consequence unless it affects overall inflation. This is because most central banks target headline inflation. But in practice, such price decline combined with nominal debt contracts and rigidity in the labour market can have large adverse effects. A twin balance sheet crisis originating because of sectoral price movements has not received enough attention in existing literature. Using data from India (the second largest steel producer in the world), the paper estimates the role of the decline in metal prices during 2011-16 in causing the twin balance sheet crisis in India. The work also uses a difference-in-differences design, to estimate the effect of banks' exposure to the iron and steel sector and metals sector on their NPAs.
- *Infrastructure Lending and Stressed Assets in the Indian Banking Sector*: The rise in non-performing assets in the 2010s was also accompanied by the push towards infrastructure creation using public-private partnerships (PPP). It is widely believed that many of these projects could not get completed due to several reasons including regulatory issues. Non-completion of these projects led to defaults by many of these private firms which had borrowed money to fund these projects. This led to stressed assets in the Indian banking sector. The paper examines data on loans given by different banks to various sectors such as roads, highways, telecommunication and power which constitute infrastructure. It uses banks' lending to the infrastructure (roads, highways, telecommunication and power) sector to estimate the contribution of these loans in creating non-performing assets.

## GOVERNANCE AND INSTITUTIONS

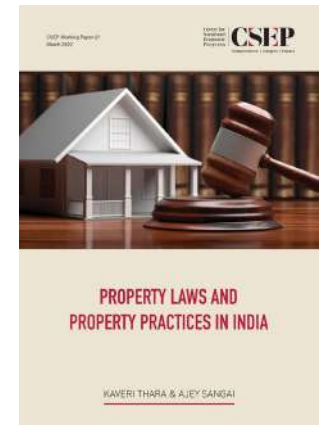
The role of the media in informing and shaping public opinion around major issues and thus impacting outcomes via its reportage has been the subject of discussion for many years now. Thus, it becomes imperative to understand what the media reports and why. The Working Paper [What Drives Media Reporting? Reader-Interest May be the Key](#) by Shishir Gupta, Nandini Agnihotri and Sikim Chakraborty explores this theme, arguing that media reporting is significantly driven by reader-interest. The paper analyses the reportage of English language media on land conflicts and oxygen shortage during the second wave of the COVID-19 pandemic in May-June of 2022. The authors find three fundamental drivers of coverage – who is involved, location of the conflict and of the reader, and finally, severity of the event. The umbilical cord in all three is found to be reader-interest.

Shishir Gupta and Nandini Agnihotri were also invited as speakers to The Media Rumble 2022, an annual media forum hosted by NewsLaundry, to discuss their paper and its findings.



The Working Paper [SVAMITVA: A Socio-Legal Analysis](#) by Kaveri Thara analyses the central government scheme The Survey of Villages and Mapping with Improved Technology in Village Areas (SVAMITVA), implemented in six Indian states. The scheme aims to provide property rights to rural home owners residing in *abadi* areas, set aside by gram panchayats for residential purposes. The paper delves into the legal implications of the implementation of the scheme. It also brings forth how the scheme will affect the ownership rights of women as well as the access to land and property for socio-economically weaker groups. It highlights the gaps in the scheme and suggests ways to address them along with proposing an evaluation system to be set in place.

Another Working Paper by Kaveri Thara and Ajey Sangai [Property Laws and Property Practices in India](#) examines property rights, acquisition and urban planning, to decrypt the stance of the Indian state vis-a-vis land and property within its territory. The paper aims to understand how a state postures itself with respect to the property rights of its citizens, by examining the property laws and practices of the Indian state as well as the practices of Indian citizens, that shape laws and their implementation.



In the last decade, the funding of Civil Society Organisations (CSOs) has undergone a massive change. From a decline in foreign funding to the implementation of Corporate Social Responsibility (CSR) to an increase in private philanthropy, CSOs have had to quickly adapt to the working ethos and approaches of these different kinds of entities in the funding/support ecosystem.



The Impact Paper [Between Binaries: The Coming Together of For-Profit and Not-for-Profit Organisations](#) by Neelima Khetan, Mallika Anand and Angira Shukla examines this situation of flux, in which both corporates and CSOs have been trying to understand and influence one another.

The Discussion Note [Analysing Judicial Efficiency of Indian Courts](#) by Aashita Dawer looks at the judicial efficiency of the Supreme Court, high courts and subordinate courts of India using data taken from Annual Reports published by the Supreme Court from 2015-16 to 2018-19. The analysis is largely based on investigating the ever-increasing pendency in these courts.

## ONGOING WORK

- In developing countries, potential home-buyers often lack accurate information about housing projects. Significant information asymmetry, with sellers having better information about the quality of their product than buyers, could adversely affect the functioning of markets. In India, insecure property rights and information asymmetry have led to a rise in litigation against housing projects. A forthcoming paper at CSEP titled *Do Mandatory Disclosures Squeeze the Lemons? The Case of Housing Markets* authored by Vaidehi Tandel, Sahil Gandhi, Anupam Nanda, and Nandini Agnihotri focuses on information asymmetry in the housing market in India. The Real Estate (Regulation and Development) Act, 2016, mandated the setting up of regulatory authorities in states. Developers have to disclose information about their projects, including the litigation status of the project. This paper studies the impact of these mandatory disclosures of housing quality on prices of litigated (bad quality) and non-litigated (good quality) properties. It also examines if mandatory

disclosures have a differential impact across housing submarkets and income groups.

- House prices in urban India are singularly high relative to income levels. There is near consensus in literature that these high prices are a combination of structural issues that constrain the supply of land, such as the opacity of the real estate sector and faults in urban planning. The general tendency is to conclude that high (unaffordable) prices are due to greater increase in real estate prices over the past many years, compared to alternative assets. A forthcoming paper titled *What is the story of real estate prices in India?* authored by Shishir Gupta, Nandini Agnihotri, and Annie George challenges this notion. By studying residential property prices over the last 3 decades using HDFC's anonymised unit level mortgage data, the paper concludes that while real estate is expensive, the tepid increase in real estate prices over the last 7-8 years represents a cyclical downturn, which will get corrected over time.

## EVENTS

As India marked 75 years of Independence in 2022, CSEP hosted the book launch of the highly relevant book [“Anchoring Change: Seventy-Five Years of Grassroots Interventions That Made a Difference”](#), edited by our Chairman Vikram Singh Mehta, Neelima Khetan and Jayapadma RV.

Anchoring Change revisits examples of civic action over the last 75 years and explores their relevance for the future of India, focusing on and celebrating the positive changes since Independence, brought about through grassroots interventions. The book attempts to shift the conversation from failures to successes and distill from these successes relevant design principles that might have wide relevance to create alternative, grassroots-based, sustainable development models.

The book was launched by Dr Karan Singh, followed by a panel discussion between Naina Lal Kidwai, Chairman of Rothschild India; Vijay Mahajan, CEO of Rajiv Gandhi Foundation; Dr Singh and Vikram Singh Mehta.



**Anoop Singh**  
Distinguished Fellow

## REBUILDING INDIA'S FISCAL FRAMEWORKS

In 2022, our work deepened its focus on aspects of India's public finances in the shadow of the COVID-19 pandemic, the war in Europe, and their international implications. The pandemic had brought previous weaknesses in fiscal architectures across countries to the fore, putting enormous stress on public finances and leading to tensions in fiscal federalism in federal countries like India. As countries slowly emerge from the pandemic, our work has focused on how India's fiscal framework can be comprehensively rebuilt, and developing more granular understandings of India's fiscal dynamics.

While the immediate crisis of COVID-19 has relented to an extent, countries remain saddled with high public debt and rising inflation. With central banks responding with monetary tightening, public spending now has to be especially carefully calibrated. It is thus all the more important to improve the quality of public spending, and of fiscal policy and governance as a whole. With limited room for necessary fiscal stimulus, the case for reforming our fiscal architecture across each of its pillars – fiscal rules, the public financial management (PFM) system, and fiscal institutions – has assumed even greater urgency.

Our work in this area has drawn from the latest comparative international research, adopted an interdisciplinary approach, and engaged in collaborations. Through various publications in the form of books, journal articles, working papers, and newspaper articles, and through organising as well as participating in seminars and conclaves, we have made significant contributions towards understanding these issues, arguing for reform, and building consensus.

Building on the work of the Fifteenth Finance Commission (15th FC), in 2022 we carried forward our long-term work on reforming India's PFM system. It is well-recognised that a robust PFM system addresses data gaps that impede the ability to understand the impact of policies, contributes to enhanced accountability and transparency in governance, and is associated with efficient and equitable public service delivery, poverty reduction, and economic growth. While the 15th FC had begun the conversation on PFM reforms and cited a draft law that could bring these about, we elaborated on the scope, alternatives, and justifications for such reforms. Our aim was to articulate a comprehensive vision for PFM in India, which could anchor future discussions on the subject.

With the well-recognised need to boost capital expenditure, and the critical role played by sub-national governments in India, it is essential that actual sub-national government spending matches budgetary projections. In this context, we undertook a comprehensive study of fiscal marksmanship, which examines the degree of correspondence between budget projections of revenue and expenditure, and actual receipts and spending. We highlighted the trends in marksmanship over the years, and also the nature and extent of Centre-state linkages that tends to underpin state finances.

We are currently working on a project that studies off-budget borrowings over the years by central and state governments, to uncover the gap between fiscal reporting of indicators such as debt and fiscal deficit, and actual numbers. This entrenched and widespread phenomenon is yet another consequence of India's poor PFM system, and only underlines the case for reform.

## FISCAL GOVERNANCE AND ARCHITECTURE

With the global economy experiencing an uneven recovery from the pandemic, what are the complexities of the policy tradeoffs ahead? What are the drivers of sharp divergences across different countries' economic prospects? In contrast to the aftermath of the Global Financial Crisis, why are emerging markets not leading the post-pandemic recovery? Will Asia be able to rebuild its growth potential in a post-pandemic world, especially India and China? In doing so, how will Asia address the weaknesses in growth and productivity fundamentals that became apparent before the pandemic? Are there lessons to be learned from this experience, as well as from previous crises, and their relevance to countries now facing financial and debt-driven crises in the emerging post-pandemic landscape?

The essays in the book [Asia and the Changing Global Economy: Rebuilding Growth Potential](#) by Anoop Singh look at these and other fundamental issues from several perspectives in today's complex global economy. They contain invaluable lessons for what needs to be done to sustain the international framework for global trade and investment that has worked so well since the Second World War and the role that needs to be played by official international institutions to maintain multilateral stability and cooperation.

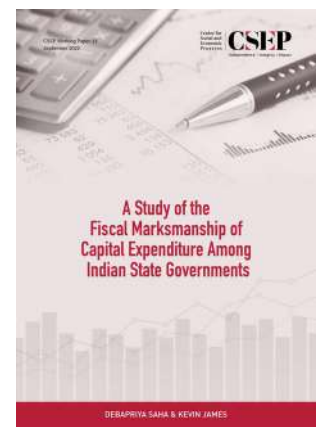
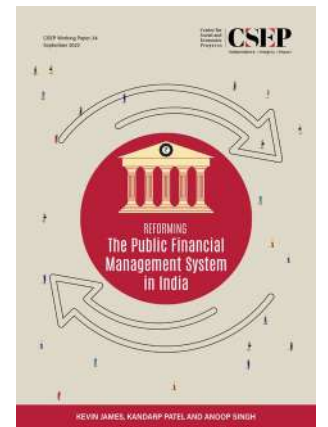


The book was also discussed in CSEP's 17th Flagship Seminar [Asia and the Changing Global Economy: Outlook and Risks Ahead](#) with a stellar panel comprising Anne Krueger, Senior Research Professor, International Economics, Johns Hopkins School of Advanced International Studies; Martin Wolf, Chief Economics Commentator, Financial Times, London; Naushad Forbes, Co-Chairman, Forbes Marshall; Anoop Singh, Distinguished Fellow, CSEP; and Rakesh Mohan, President and Distinguished Fellow, CSEP.

In the aftermath of the pandemic, and with the rise in its public debt, India needs to rebuild its fiscal framework. This has become a global challenge as countries face the inter-related goals of lifting growth potential while consolidating elevated debt levels. The Fiscal Governance and Architecture work in 2022 addressed the reforms needed in the three pillars of India's fiscal architecture - fiscal rules, the public financial management (PFM) system, and fiscal institutions.

In the Working Paper [Reforming the Public Financial Management System in India](#) by Kevin James, Kandarp Patel and Anoop Singh, the authors look at the key areas in which India needs PFM reforms, building on the provisions of a draft PFM law prepared by an expert group and cited by the Fifteenth Finance Commission. These include fiscal responsibility, the Annual Budget, financial management, reporting and accounting, and legislative and executive oversight. The paper studies the existing frameworks in these areas and proposes reforms, drawing from international experience and best practices, with the aim of charting a comprehensive way forward for PFM in India.

[A Study of the Fiscal Marksmanship of Capital Expenditure Among Indian State Governments](#) by Kevin James and Debapriya Saha aims to comprehensively analyse and understand sub-national fiscal marksmanship, with a particular focus on capital expenditure in the social sector. The Working Paper covers the period of 2010-2018, and looks at marksmanship ratios and forecast errors across those years for 15 major states, selected based on the magnitude of their capital expenditures. It also carries out an assessment using the Public Expenditure and Financial Accountability (PEFA) framework, and ranks states accordingly. Further, it attempts to understand the sources of the forecast errors, using Theil's coefficient and by partitioning the errors, to ascertain whether the observed errors in the budget can be improved upon or not. It finally makes an attempt to contextualise and understand some of the causes behind the observed trends in sub-national fiscal marksmanship.



### KEY EXTERNAL ENGAGEMENTS

- Anoop Singh participated in the Kautilya Economic Conclave, in the session on 'Public Debt and Fiscal Consolidation after the Pandemic', which featured Rathin Roy, AK Bhattacharya, Poonam Gupta, and Surjit Singh Bhalla
- Anoop Singh was also part of the EGROW Webinar Series, in a session on 'Asia and the Changing Global Economy', featuring Aruna Sharma, G Ramesh, and Arvind Virmani

### NOTABLE PUBLICATIONS

- India's Public Financial Management System: Need for Reforms and Way Forward, Kevin James, Kandarp Patel, and Anoop Singh, 3(4) *Indian Public Policy Review*, July 2022
- Hamīñ Ast? A Biography of Article 370, Arghya Sengupta, Jinaly Dani, Kevin James, Pranay Modi, *Navi Books*, August 2022

## ONGOING WORK

- A forthcoming paper, tentatively titled *Off-Budget Borrowings: Nature and Implications* gives an overview of the problem of data gaps, and extensively studies the practice of off-budget borrowing at the central and state levels as a major example of it. It surveys recent developments in this regard, highlights the extent and nuances of the issue and trends over time, analyses flawed attempts to address the problem, and makes recommendations for resolving it over the longer term.
- A forthcoming book chapter, tentatively titled *Resetting the Fiscal Architecture: Lessons for India* takes a detailed and comprehensive look at the three pillars of India's fiscal architecture, viz. fiscal rules, public financial management systems, and independent fiscal institutions, and makes recommendations for reforming each of them. It draws extensively from international best practices and situates the analysis in the present context of challenges to public finances due to the impact of the COVID-19 pandemic, rising inflation, and the war in Ukraine.

## EVENTS



Governments face record debt levels, tightening monetary policies, and urgent demands to tackle the cost-of-living crisis, while policy buffers are largely exhausted after two years of the pandemic. The Flagship Seminar [Revising Fiscal Rules and Fiscal Strategies after the Pandemic](#) introduced recent IMF publications on these issues and offered an opportunity to rethink fiscal rules and determine how governments can build fiscal buffers in normal times so that fiscal policy can be more agile and flexible in responding to crises, without undermining fiscal sustainability. The panel consisted of Deputy Division Chief in the Fiscal Affairs Department of the International Monetary Fund (IMF) Raphael Lam; Director General of the National Council of Applied Economic Research (NCAER) Poonam Gupta; Anoop Singh; and President and Distinguished Fellow, CSEP Rakesh Mohan.

## LIST OF PUBLICATIONS, OP-EDS AND EVENTS

### WORKING PAPERS

- [Insolvency and Bankruptcy Code \(IBC\) and Long-Term Bulk Lending in India](#)  
Jaimini Bhagwati
- [The Roller Coaster Ride of Non-performing Assets in Indian Banking](#)  
Rakesh Mohan & Partha Ray
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- [Health System in People's Republic of China \(PRC\): Reforms, Transformation and Challenges](#)  
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- [Health System in Turkey: Reforms, Transformation and Challenges](#)  
Sandhya Venkateswaran & Alok Kumar Singh
- [Health System in Mexico: Reforms, Transformation and Challenges](#)  
Alok Kumar Singh & Sandhya Venkateswaran
- [Commodity Price Shocks and Non-Performing Assets in the Indian Banking Sector](#)  
Abhishek Kumar, Rakesh Mohan & Divya Srinivasan
- [The Political Journey of Healthcare in Select Indian States](#)  
Sandhya Venkateswaran, Mayank Mishra & Nikhil Iyer
- [Health System in the Republic of Indonesia: Reforms, Transformations, and Challenges](#)  
Madhurima Nundy & Pankhuri Bhatt
- [Health System in Brazil: Reforms, Transformation and Challenges](#)  
Sandhya Venkateswaran & Alok Kumar Singh
- [Health System in the Kingdom of Thailand: Reforms, Achievements and Challenges](#)  
Madhurima Nundy & Pankhuri Bhatt
- [India's New Growth Recipe: Globally Competitive Large Firms](#)  
Shishir Gupta & Rishita Sachdeva

### IMPACT PAPERS

- [Between Binaries: The Coming Together of For-Profit and Not-for-Profit Organisations](#)  
Neelima Khetan, Mallika Anand & Angira Shukla

### DISCUSSION NOTES

- [Revisiting the Role of Funding: Lessons from Expenditure and Performance on Cleanliness in an Inter-temporal Setting](#)  
Shishir Gupta & Rishita Sachdeva
- [Analysing Judicial Efficiency of Indian Courts](#)  
Aashita Dawer

### BOOKS AND CHAPTERS

- [Asia and the Changing Global Economy: Rebuilding Growth Potential](#)  
Anoop Singh
- [Anchoring Change : Seventy-Five Years of Grassroots Intervention That Made a Difference](#)  
Vikram Singh Mehta, Neelima Khetan & Jayapadma RV

### JOURNAL ARTICLES & CONFERENCES

- [Explaining India's Housing Vacancy Paradox](#)  
Sahil Gandhi, Richard K Green & Shaonlee Patranabis
- [Market Volatility, Monetary Policy and the Term Premium](#)  
Abhishek Kumar
- [What Drives Indian Inflation? Demand or Supply](#)  
Abhishek Kumar
- [India's Public Financial Management System: Need for Reforms and Way Forward](#)  
Kevin James & Anoop Singh
- [Bank Credit Risk and Macro-prudential Policies: Role of Counter-cyclical Capital Buffer](#)  
Abhishek Kumar
- [Political Motivation as a Key Driver for Universal Health Coverage](#)  
Sandhya Venkateswaran, Shruti Slaria & Sampriti Mukherjee

### BLOG

- [Union Budget 2022-23: Key Takeaways by CSEP Scholars](#)  
Team CSEP

### OP-EDS AND COMMENTARY

- [India's Hopes and Dynasties](#)  
Jaimini Bhagwati | Business Standard
- [Three Tech Industry Trends to Watch in 2022](#)  
Bhaskar Chakravorti | Foreign Policy.com
- [Enough of the Old 'Level Playing Field' Argument. Reduce Trade Barriers to make India Grow](#)  
Shishir Gupta, Divya Srinivasan & Abhishek Kumar | The Economic Times
- [Does India's Development Model Need an Overhaul?](#)  
Nachiket Mor & Sandhya Venkateswaran | Hindustan Times

- [What is the Credibility of Government Accounting?](#)  
Jamini Bhagwati | Business Standard
- [‘Make in India’ a Work in Progress](#)  
Aasheerwad Dwivedi | East Asia Forum
- [Bring Real Estate, Petroleum, Alcohol and Power into GST | Interview](#)  
Montek Singh Ahluwalia | The Week
- [What the Government Needs to do to Boost India's Growth | Interview](#)  
Montek Singh Ahluwalia | Business Today
- [How Will the Economy be Affected by Budget 2022? | Interview](#)  
Montek Singh Ahluwalia | Times Now News.com
- [For India to be Financially Inclusive and Economically Better, Financial Literacy is a Must](#)  
Laveesh Bhandari | India Stat
- [What the Union Budget Got Right, and What it Missed](#)  
Montek Singh Ahluwalia | Mint
- [Why Most Indians Don't Trust News? A Study of Land Conflicts Answers](#)  
Shishir Gupta, Nandini Agnihotri & Sikim Chakraborty | The Print
- [What Drives Media Reporting?](#)  
Shishir Gupta, Nandini Agnihotri & Sikim Chakraborty | India Together
- [Timing and Design Key to Making Digital Rupee a Success](#)  
Aasheerwad Dwivedi | Money Control
- [The Economy and India's Future | Interview](#)  
Montek Singh Ahluwalia | Times Now News.com
- [Free Trade Agreements are Leading to More Imports Than Exports | Interview](#)  
Montek Singh Ahluwalia | The New Indian Express
- [Why AI Failed to Live Up to Its Potential During the Pandemic](#)  
Bhaskar Chakravorti | Harvard Business Review
- [Montek Singh Ahluwalia on India's Economic Prospects | Interview](#)  
Montek Singh Ahluwalia | Bloomberg
- [FTA with the UK can Weave Magic](#)  
Abhishek Kumar & Divya Srinivasan | Financial Express
- [What Drives the Media's Coverage of Social Issues?](#)  
Shishir Gupta & Nandini Agnihotri | India Development Review
- [Explosive Dying Declaration?](#)  
Jaimini Bhagwati | Business Standard
- [Corporate Misgovernance in India](#)  
Jaimini Bhagwati | Business Standard
- [Delaying Action Does not Protect Growth: Montek Singh Ahluwalia on RBI Rate Hike](#)  
Montek Singh Ahluwalia | The Economic Times
- [Right to Health Laws Need Political Support](#)  
Sandhya Venkateswaran | Hindustan Times
- [With its GST Ruling, the Supreme Court has Articulated an Alternative to BJP's 'One Nation' Rhetoric](#)  
Kevin James | Scroll.in
- [“Despite Warnings, Central Banks in Developed Countries do not Take Inflation Seriously”](#)  
Rakesh Mohan | Bloomberg HT
- [Dismal Realities about Healthcare in the National Capital Region](#)  
Jaimini Bhagwati | Business Standard
- [The Pandemic-flagged Need for a New Fiscal Framework](#)  
Anoop Singh | Mint
- [The Life and Times of Montek Singh Ahluwalia](#)  
Montek Singh Ahluwalia | The Seen and the Unseen (Podcast)
- [How Biden's “Internet for All” Initiative Can Actually Fulfill Its Mission](#)  
Bhaskar Chakravorti | Harvard Business Review
- [Political Forum and Development Goals](#)  
Ramu Damodaran | The Korea Times
- [The Trade Policy India Needs](#)  
Montek Singh Ahluwalia | Mint
- [Uber Files Gives us a Glimpse of Big Tech's Playbook for Market Manipulation](#)  
Bhaskar Chakravorti | The Indian Express
- [India's Start-ups are on Fire, but Unicorns can't Automatically Spur Growth](#)  
Shishir Gupta | The Print
- [How US Demand Helped Expand Labour-intensive Manufacturing](#)  
Abhishek Kumar & Divya Srinivasan | Mint
- [Naysayers are Wrong, India Does have Success Stories](#)  
Vikram Singh Mehta | The Indian Express
- [Six Monthly Indicators of Recession](#)  
Anoop Singh | Mint
- [Using Construction Technologies to Solve Mass Housing Woes](#)  
Debarpita Roy & Ayush Khare | Hindustan Times
- [The Key to Economic Recovery That will Spur Private Investment to Pick Up](#)  
Ayush Khare, Rishita Sachdeva & Divya Srinivasan | The Economic Times
- [Review: Recalibrate by NK Singh, With Select Insights from PK Mishra](#)  
Rakesh Mohan | Hindustan Times
- [Municipal Finance in Focus: How India can Empower its Urban Local Bodies](#)  
Shishir Gupta & Rishita Sachdeva | The Economic Times
- [Where to Find Top AI Talent](#)  
Bhaskar Chakravorti | Harvard Business Review
- [Towards A More Equal Society](#)  
Vikram Singh Mehta | Open: The Magazine

## EVENTS

- [The Struggle and The Promise: Restoring India's Potential](#)  
Flagship Seminar | Book Launch and Discussion
- [Asia and the Changing Global Economy: Outlook and Risks Ahead](#)  
Flagship Seminar
- [Navigating Policy Trade-Offs And Mitigating Output Losses In Asia](#)  
Flagship Seminar
- [Pandemic, Poverty, And Inequality: Evidence From India](#)  
Flagship Seminar
- [Gandhi's Patience: A Conversation Between a Political Philosopher and a Biographer](#)  
Flagship Dialogue
- [Reflections on Policy Making and Governance in India: Dialogue between YV Reddy and NK Singh](#)  
Flagship Dialogue
- [Health System Dialogues | Health Insurance for Universal Health Coverage: Enabling and Constraining Factors for Integration of Health Services](#)  
Webinar
- [Health System Dialogues | Strengthening Primary Healthcare: A Cross Country Dialogue](#)  
Webinar
- [Revising Fiscal Rules and Fiscal Strategies after the Pandemic](#)  
Flagship Seminar
- [Book Discussion | Anchoring Change: Seventy-Five Years of Grassroots Interventions That Made a Difference](#)  
Seminar
- [Global Health Priorities for G20: Insights from South East Asia](#)  
Webinar
- [Global Semiconductor Industry – India's Path Forward](#)  
Seminar



# ENERGY, NATURAL RESOURCES, AND SUSTAINABILITY

The Energy, Natural Resources and Sustainability vertical at CSEP is dedicated to conducting comprehensive research on India's energy potential and requirements, with strong links to sustainability and climate change. Our work centers on the study of fuels and supply options including coal, natural gas, minerals, the analysis of frameworks, regulations, and pricing especially in the power sector, and the ongoing energy transition, which is driven by renewable energy, new technologies, electric vehicles, and more. Our objective is to advance impactful research that helps understand India's energy needs while being mindful of the social and environmental concerns around it.



**Montek Singh Ahluwalia**  
Distinguished Fellow

## CLIMATE CHANGE: CHALLENGES FOR INDIA AND THE DEVELOPING WORLD

Climate change remained at the forefront of the global agenda in 2022, albeit with a blurring of focus because of other developments in the world economy. The likelihood of the developed world dipping into a recession because of steps being taken to combat inflation, disruptions in commodity markets because of the Russia-Ukraine war, and geopolitical uncertainty in the Asia-Pacific region because of tensions between the US and China all contributed to an international environment which was not conducive to making progress on climate change. The COP27 conference in Egypt was a disappointment with no progress in getting the countries to commit to more ambitious emission reduction targets, which was identified as a high priority in COP26, and even less progress in ascertaining an increased flow of climate finance from developed to developing countries to support the necessary climate change mitigation and adaptation measures.

Our work on climate change in CSEP in 2022 focused on the challenges India and other developing countries would face in achieving the COP26 announcements of reaching Net Zero emissions by various dates around the mid-century. This is elaborated in the joint papers by Utkarsh Patel and myself. These were followed by a paper on international climate financing for all developing countries. The paper on India emphasises that the energy transition needed would require simultaneous actions on multiple fronts, involving coordination between different actors from the ministries of national and sub-national governments, and the private sector. It argues that this would be best managed by having short-term targets, covering ten-years at a time, which will help keep track of progress in the respective areas and allow flexibility to plan for the next ten years.

We propose to further refine our work on India by exploring sectoral targets feasible over the next ten-year period. An important input into this effort will be the development of an India-focused integrated assessment model of the economy and the environment which will quantitatively examine growth implications of alternative low-carbon development pathways. The analysis would help in planning for short- and medium-term targets, consistent with India's long-term target of 2070, and also produce estimates of investment requirement of the transition. Utilising the latest methods in economic modelling, we aim to contribute to the existing literature on development pathways for India with greater emphasis on, for example, the role of state-specific strategies in this context.

I have been appointed a member of the Governing Council of the Tamil Nadu Climate Change Mission. My involvement in the state's governing council will help refine our thinking on state-specific issues, which could be applied to other states as well. We also plan to continue our work on international climate financing by exploring alternative sources of mobilising capital for India and other developing countries on the scale that is needed. As brought out in our working paper Financing Climate Change Adaptation and Mitigation in Developing Countries, private capital has to play a major role in financing the new infrastructure development but in order to attract private investment, it would be necessary to reduce the risks perceived by the investors. We hope that our further works can be a useful input into the ongoing effort to repurpose the multilateral development banks (MDBs). We are also hoping to feed our work into the discussions on MDBs at the G20 meetings, which are going to be hosted in India under its presidency this year.

## CLIMATE CHANGE

Climate Change and Sustainability research at CSEP takes a ‘whole of the economy’ approach and seeks to better understand the challenges, the solutions, and their ramifications, with robust and credible analysis and reasoning. This includes work on the power sector, non-fuel minerals and mining, coal, oil and gas and renewable energy. Our work is therefore aimed at informing the public on the key choices before India and the world, and their potential impact on the environment, well-being, and equity.

While climate change mitigation has been of key interest globally, adaptation issues are as important, more so for developing countries and particularly in South Asia. CSEP research encompasses all aspects of climate change and can be broadly divided into – what is required, how it should be executed, and the role India can play at the global level.

The objective of our work on climate change at CSEP is to identify policies that India can undertake to mitigate climate change and tackle the challenges it poses, and to develop a policy framework for the country that it can push in international forums, alongside other developing countries, to meaningfully drive climate action forward.

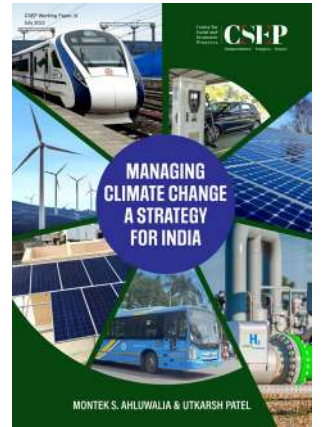
The Working Paper by Montek Singh Ahluwalia and Utkarsh Patel [Climate Change Policy for Developing Countries](#) reviews the outcomes of COP26, in particular the conference’s failure to ensure the flow of the promised \$100 billion per year in climate finance from developed countries to developing countries for supporting mitigation and adaptation actions. The paper proposes a strategy for the developing countries for the next COP meeting, focusing on the need to raise international climate finance to levels essential for implementing the climate actions announced at COP26. This paper was also published as a chapter in the book ‘Envisioning 2060: Opportunities and Risks for Emerging Markets’ of the Emerging Markets Forum (Washington DC) and the Bank of France.



CSEP also hosted a [Flagship Seminar](#) to mark the India launch of the book with a panel comprising Harinder S Kohli, Founding Director and Chief Executive of Emerging Markets Forum; Rajat Nag, Distinguished Fellow at India’s National Council of Applied Economic Research, Delhi and at the Emerging Markets Forum; Montek Singh Ahluwalia, Distinguished Fellow, CSEP; Amita Batra, Professor of Economics, School of International Studies, Jawaharlal Nehru University; and Rakesh Mohan, President and Distinguished Fellow, CSEP.

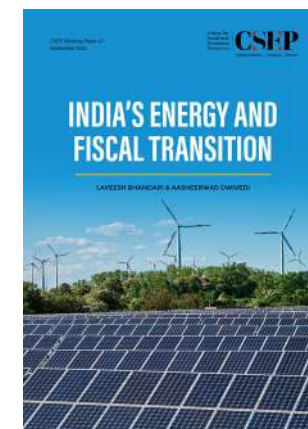
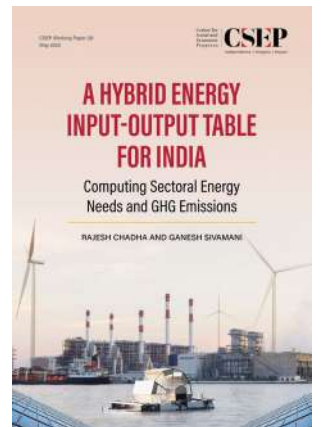


Montek Singh Ahluwalia and Utkarsh Patel also submitted their contributions, as two chapters, to an upcoming book of the Brookings Institution and the Rockefeller Foundation. The first of the two chapters, [Managing Climate Change: A Strategy for India](#) was also published as a CSEP Working Paper. The paper is about India’s new climate targets, and it outlines the broad strategy the country must follow to achieve them.

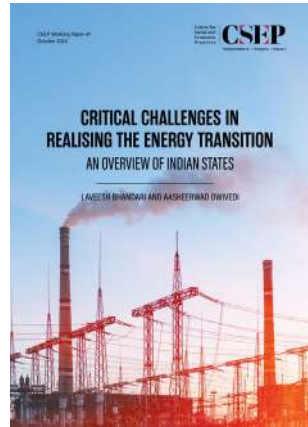


The other chapter was also published as a CSEP Working Paper titled [Financing Climate Change Mitigation and Adaptation in Developing Countries](#). This paper discusses the issue of climate finance and what developing countries must do to raise the requisite amount of capital. It is understood based on a review of the estimates of global investment requirements for climate change mitigation and adaptation that developing countries will require investments in the order of trillions of dollars annually, as against the promise of \$100 billion per year that is yet to be fulfilled. The authors argue that developing countries cannot realistically expect that all the required amount would come from international sources. At least half of the amount will need to be mobilised domestically, while the rest can come from bilateral and multilateral sources.

The Working Paper [A Hybrid Energy Input-Output Table for India](#) by Rajesh Chadha and Ganesh Sivamani computes the direct and indirect energy consumed and emissions produced by the economy’s intermediate production and final-use sectors by constructing a 34-sector hybrid energy Input-Output Table (EIOT). The EIOT contains ten energy sectors: coal and lignite, biomass, crude petroleum, natural gas, combustible petroleum products, non-combustible petroleum products, coal electricity, other thermal (natural gas and petroleum products) electricity, large-scale hydro-electricity, and renewable energy sources and nuclear electricity. The paper suggests that policies are needed to reduce emissions by adopting more efficient production technologies and conserving the use of coal and petroleum products.



In the Working Paper [India’s Energy and Fiscal Transition](#), Laveesh Bhandari and Aasheerwad Dwivedi look at the country’s expected energy transition towards a low-carbon future, and study how government revenues from fossil fuels will be affected over the next two decades. The authors take the International Energy Association (IEA 2021) scenarios for India and study how both tax revenues and non-tax revenues for national (Central) and sub-national (State) governments would be affected. The paper also briefly discusses the possible impact of Net Zero and carbon taxes were India to take that route, as well as how subsidies are expected to impact and be impacted by such considerations.



**Critical Challenges in Realising the Energy Transition: An Overview of Indian States** studies three of the many challenges that state governments will face as India transitions away from a fossil fuel-driven economy. The Working Paper by Laveesh Bhandari and Aasheerwad Dwivedi estimates the current dependence on fossil fuels by way of state government revenues from fossil fuels, ownership of thermal (coal) power units and those employed in coal mining. It looks at the expected time path of the various transition processes in each of these three areas. While all transitions will be challenging in various ways for each state, some states will require greater efforts in managing the process smoothly.

The Working Paper **Modelling the Impact of the Clean Environment Cess: A Hybrid Energy Input-Output Approach** by Rajat Verma and Ganesh Sivamani seeks to measure the impact of the Clean Environment Cess (CEC) on greenhouse gas emissions and the gross domestic product at both the sectoral and national levels. The paper examines the issues of reducing emissions and tackling climate change by modelling the impact of the CEC using a hybrid energy input-output framework



Climate change impacts agricultural productivity and while there have been many studies to that effect both in India and globally about specific crops, there is little on how changes in temperature and rainfall affect a range of crops. One reason for the dearth is lack of comparable data. The Working Paper **Climate Change, Weather Anomalies, and Agriculture: Impact on Output of Major Crops in India** by Shreekanth Gupta, Laveesh Bhandari, Ramandeep Jakhu & Monica Sharma, studies the impact of temperature and rainfall anomalies, which are divergences over the long-term (1966 to 2017) average values and assess their impact on major crop yields in the country over the same period. The paper uses district-level data made available by the International Crops Research Institute (ICRISAT) and Tata Cornell Institute (TCI), evidently reflecting that the availability of greater data makes it possible to assess a large set of crops over a long period of time; therefore, greater data points can yield highly robust results.

## KEY EXTERNAL ENGAGEMENTS

- Montek Singh Ahluwalia has been part of the World Bank–IMF High-Level Advisory Group on Sustainable and Inclusive Recovery and Growth, and of the Independent High-Level Expert Group on Climate Finance led by Vera Songwe and Lord Nicholas Stern. He was appointed a member of the Tamil Nadu Governing Council on Climate Change in October 2022. He was also invited to speak on climate change policy by many organisations including the World Bank, University of Oxford, and the London School of Economics in 2022.
- Utkarsh Patel was selected in the inaugural cohort of 6 Climate Fellows at Yale University, as part of its Emerging Climate Leaders Fellowship programme. He also participated in a side-event organised by the BRICS Policy Centre (Brazil) at COP27, where he was invited to speak on India’s climate ambitions.
- Laveesh Bhandari and Aasheerwad Dwivedi were invited by the Economic Advisory Council to the Prime Minister (EAC-PM) to present their paper “India’s Energy and Fiscal Transition.”

## ONGOING WORK

- *Mining and Environment in India: Addressing the Crossroads* addresses the interconnectedness between mining and the environment highlighting the sustainability aspects of mining. It further discusses the policy framework for the mining sector in India and the environmental impacts of policy regime shifts.
- *Impact of Climate Change on Indian Livestock Production* uses district-wise data to look at the impact of climate change (rainfall and temperature) on the production of milk, eggs, and meat.
- *Critical Analysis of Climate Finance Instruments: Assessment of Suitability for India* aims to study the existing climate finance instruments to critically analyse their features, the challenges they face and if they have the potential to scale in India given the financial ecosystem of our country.
- *Environmentally-extended Social Accounting Matrix 2019-20* attempts to construct the latest Environmentally extended Social Accounting Matrix (ESAM) for India for 2019-20. It gives a detailed categorisation of labour, spanning over 317 categories for various combinations of region, occupation of the head of the family, social category, education and gender. Further, the households have been classified into 80 categories based on their region and decile categories of expenditure. An attempt has also been made to classify pollution into all the three types: air, water and land. This ESAM also provides an account of sectoral level energy balance for the Indian economy.
- With India assuming the Chairmanship of the G20, CSEP hopes to engage with domestic stakeholders and produce policy-relevant analysis that supports the case of India and other developing countries in international negotiations on climate finance, based on a realistic assessment of what is possible to achieve within the next 3-4 years.

- CSEP will also begin work on developing an integrated assessment model for India to conduct an energy-economy analysis and improve our understanding of India-specific issues pertaining to energy transition and climate change. The work shall help in planning a long-term low-emissions pathway of India’s development.

## CLIMATE CHANGE ADVISORY COUNCIL

- **Ajay Chhibber**, Distinguished Visiting Scholar, Institute for International Economic Policy, George Washington University
- **Mekala Krishnan**, Partner at McKinsey Global Institute
- **Shyam Saran**, Honorary Senior Faculty and Member of the Governing Board, Centre for Policy Research
- **Paul Simons**, Senior Fellow, Jackson Institute of Global Affairs, Yale University
- **Vinod Thomas**, Visiting Professor, National University of Singapore and Distinguished Fellow, Asian Institute of Management
- **Lekha Chakraborty**, Professor, National Institute of Public Finance and Policy
- **Pronab Sen**, Former Programme Director, International Growth Centre India Programme, New Delhi
- **Bishwanath Goldar**, Former Professor, Institute of Economic Growth, New Delhi
- **Rakesh Mohan**, President and Distinguished Fellow, CSEP

## EVENTS

On 28 February, 2022 in a Flagship Seminar based on the Working Paper by Montek Singh Ahluwalia and Utkarsh Patel, [Climate Change Policy for Developing Countries](#), energy experts discussed the actions developing countries must take to achieve Net Zero emissions.



On 6 April, 2022 we partnered with McKinsey & Company to discuss their report “[From grey to green: Net-zero transition opportunities for India.](#)” The panel examined why the Net Zero gap has not closed, levers that will drive decarbonisation in India and how Indian companies are rising to the challenge of energy transition and opportunities for value creation.

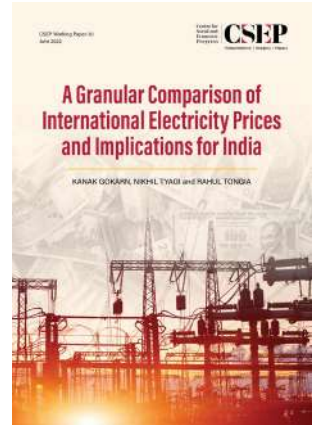


## INDIA'S POWER SECTOR

Along with climate change and energy transition, CSEP has continued to build on our ongoing substantive work on coal, natural gas, and renewables and continued deep analysis on the fuel mix that simultaneously meets energy demand growth while addressing the environmental and social contract. The power sector is one of CSEP’s key focus areas of work, where our research spans prices, regulation, markets, incentives, and innovation.

CSEP scholars completed several large studies on electricity Distribution Company (discom) finances and prices. The Working Paper [A Granular Comparison of International Electricity Prices and Implications for India](#) by Kanak Gokarn, Nikhil Tyagi and Rahul Tongia, compares electricity prices by consumer type across various countries, for the first time adding in taxes and surcharges in such a comparison. While Indian policies of cross-subsidising some users at the expense of others like commercial and industrial users who overpay are well known, the comparison with other countries offers a range of insights, especially how Industry has often asked for (and gotten) discounts in pricing structures. Even without such discounts, the costs to serve such larger users are lower than for households. India’s reverse pricing impacts global competitiveness and, ultimately, employment.

The Discussion Note [Potential of Lower Costs of Capital for Faster Decarbonisation in Developing Regions](#) by Rahul Tongia focuses on financing of clean energy to spur the cross-over from fossil fuels to clean energy, comparing the costs of a carbon tax (to make high carbon fuels more expensive) versus lowering finance costs (to make clean energy less expensive). The research finds that not only is the cross-over achievable but that there is a case to be made for lowering of finance costs in advance while planning analogous to how developers often deploy a “shadow carbon price” that isn’t actually levied.



Rahul Tongia’s analysis on equity across countries and carbon space led to a significant online commentary before the UN’s Climate Change conference COP27 in November 2022, focusing on how fast can (or should) developing countries decarbonise. His piece titled [It is Unfair to Push Poor Countries to Reach Zero Carbon Emissions too Early](#) was published at both the Brookings Institution and CSEP. The author argues that the pressure for an early absolute zero on the poor is misguided, and much more reduction is missing from high-emitters.

Daljit Singh continued his work on power sector regulation, including examining global experience in regulatory reforms. He, along with other scholars, commented on various proposed amendments to the Electricity Act 2003 which aims to open up electricity distribution to multiple providers, a

shift from today’s monopoly system. They have cautioned that focusing on multiple providers may distract from more fundamental issues, and could create other problems. He and others identified the limits of retail competition before having wholesale and fuel market liquidity. Daljit Singh has also reviewed the planning processes in the power sector and emphasised the need to make systemic changes so that the Indian power sector is prepared for the challenging future that lies ahead with a much greater contribution of renewable energy in the generation mix.

Rajasekhar Devaguptapu has continued analysis on power markets, also being a regular invited lecturer at National Power Training Institute under the Ministry of Power (NTP), delivering a dozen lectures on issues of power systems regulations.

## NOTABLE PUBLICATIONS

- *Current and Future Estimates of Marginal Emission Factors for Indian Power Generation* - A number of journal publications including some that had multiple CSEP co-authors focused on coal, building on work by then Visiting Scholar Shayak Sengupta. In this first analysis, the authors examine how coal use would shift under policy choices of how we dispatch (procure) power – whether at the state or regional or national level. The scholars also modelled the implications of a carbon tax on optimal supply.
- *Sub-national Implications from Climate and Air Pollution Policies in India's Electricity Sector* - This paper focuses on marginal local air pollution from the grid, predominantly from coal power plants. The work has shown that in the short run, national despatch and a carbon price both have minimal impact on the overall fuel mix because there is limited slack in renewable energy supply. What does change is which plants are operated for how many hours in the year and where they are located. What appears to be cheaper overall (on average) raises air pollution in parts of the country, especially near coal mines.
- *Sustained Cost Declines in Solar PV and Battery Storage Needed to Eliminate Coal Generation in India* - A study led by Aniruddh Mohan with Rahul Tongia as a collaborator, asks the question - what would it take to entirely displace the use of coal in India by 2030 or 2040? This analysis uses real-world data for several sites, overlaid with 20-year satellite data to examine the variability of wind and solar supply.
- *Balancing India's 2030 Electricity Grid Needs Management of Time Granularity and Uncertainty: Insights from a Parametric Model* - This major modelling study aims to answer how India's grid will balance high levels of RE penetration, and at what cost. We found that RE is cost-effective due to its low cost, but there are several key findings for policy, including likely over-supply of RE, leading to curtailment (throwing it away) parts of the year; the problem of not enough firm (despatchable) power, especially to meet the evening peak demand; and levelised cost of energy (LCOE) being a poor marker for how to compare supply options because it ignores system level costs. A key finding was the challenges of meeting energy demand at all times of day and across seasons, variability that impacts both demand and RE supply, India's grid management will need to reflect such conditions, like with time of day, congestion, and reliability pricing.

## KEY EXTERNAL ENGAGEMENTS

- Rahul Tongia was invited to join the Technical Advisory Committee of Experts (TACE), under the Ministry of Environment, Forest, and Climate Change (MoEFCC) in 2022. He provided a range of inputs on India's future fuel mix, especially on the pathway for coal, and his writings and recommendations have made their way into the government's official India's Long-Term Low-Carbon Development Strategy, submitted to the UN Framework Convention on Climate Change (UNFCCC).
- CSEP, led by Rahul Tongia, was invited to join the Steering Committee of the India Climate and Energy Modelling Forum (ICEMF) under NITI Aayog. Under ICEMF, CSEP researchers are participating in discussions on the future development of a Social Accounting Matrix (SAM), which goes beyond just quantities and volumes of fuels in the future, adding in social aspects like employment or environmental impacts.
- Rahul Tongia was invited to several NITI Aayog expert groups and committees on coal in India, both on coal demand as well as coal transportation, and our scholars have engaged with policy-makers across ministries and domains on these issues.
- Many of our ongoing studies have been shared with leading policy-makers, regulators, and civil society through a range of invited briefings, seminars, and presentations. We have also presented our work on the power sector to other diverse stakeholders, including utilities and consultants. Key national events where we've moderated or given keynote addresses include Distribution Utility Meet, India Smart Utility Week, Karnataka EV Abhiyaan, and the 22nd Regulators and Policy-Maker's Retreat.

## ONGOING WORK

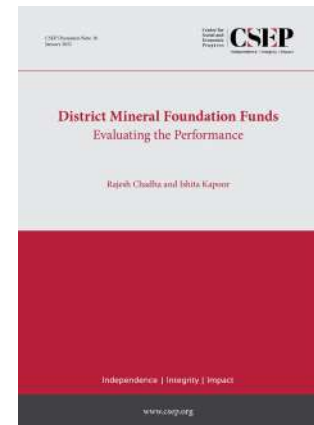
- The work on supply options continues through two threads. First, a focus on the power sector examines tradeoffs between supply choices that go beyond just economics. Issues of air pollution, energy security, and imports remain key factors that must also be incorporated into planning. The second thread of fuel mix analysis goes beyond the power sector, to the larger economy, including transportation and industrial use.
- *Electricity Consumption in India: Past and Future* discusses the various factors impacting the demand for electricity in India, especially focusing on emerging issues in recent years. We also calculate the elasticity of electricity with respect to GDP to understand the future of electricity demand in India.
- CSEP has ongoing analysis on green hydrogen spanning economics, uncertainty, and sector-wise implications for use. Given the dominant cost of production is input clean energy, this analysis builds on our electricity grid modelling work and finds that there are a few key issues for planning at a systems level.
- Another study led by Nikhil Tyagi, which is under the final stages of publication, examines two sets of questions. The first aims to examine how

much cross-subsidy is there in India's system across consumer groups, while the second part of the study attempts to determine the role of different stakeholders in this problem, including issues of non-performance compared to targets. A complementary study, led by Rajasekhar Devaguptapu, examines the financial gap of discoms in detail over time, across a 15-year time series. A key question we examine is how much of the gap is due to discom non-performance, like poor AT&C (aggregate technical and commercial) losses.

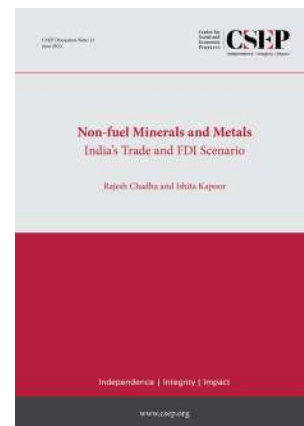
- Scholars led by Rahul Tongia continue work on making India's grid smarter and more RE-capable, while considering issues of equity across consumers. This covers aspects of pricing, including time of day pricing, and the balance between fixed and variable charges across the chain. Going forward, we anticipate major shifts in the electricity sector, with rising use of electric vehicles, storage technologies, self-generation (such as rooftop solar), etc., and these need new pricing models that today's average-cost basis regulated frameworks aren't designed to handle well. A common thread to much of this work is to develop policies that ensure future growth of supply and demand aligns with a low- or zero-carbon future.

## NON-FUEL MINERALS AND MINING

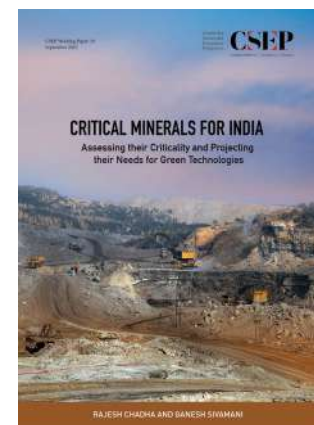
CSEP has intensified its research programme in non-fuel minerals and mining in India, an area without much research attention otherwise. A vibrant non-fuel mining sector shall provide essential raw materials for manufacturing industries and increase employment opportunities while adding fiscal gains for state governments. However, all this must be done in a framework consistent with sustainability and climate change concerns. India's commitments to climate change mitigation and adaptation also necessitate ensuring its mineral security for the future of clean energy generation, electric vehicles, and high-tech manufacturing. The work programme seeks to enable the policies that will allow sustainable growth of the non-fuel mining sector in alignment with the welfare of affected communities and environmental protection.



The Discussion Note [District Mineral Foundation Funds: Evaluating the Performance](#) by Rajesh Chadha and Ishita Kapoor analyses the collection, allocation and expenditure patterns of India's top 12 mining states by creating a DMF utilisation index (DMFUI). DMF funds were introduced in 2015 as a benefit-sharing scheme for mining-affected communities. The DMFUI is constructed to analyse states based on quantitative indicators such as allocation to collection ratio and expenditure to collection ratio, as well as qualitative indicators, including the percentage of DMF allocation towards high-priority areas and the spread across the 12 priority areas. The index shows the diversity of DMF welfare spending across the 12 states.

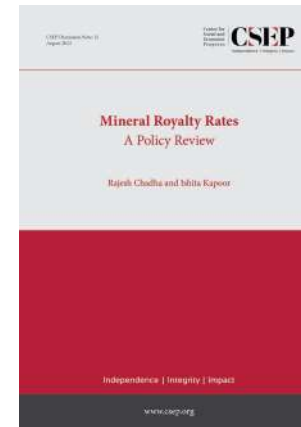


[Non-Fuel Minerals and Metals: India's Trade and FDI Scenario](#) by Rajesh Chadha and Ishita Kapoor portrays the trade export-import and price patterns of metals and minerals, including bauxite, iron ore, copper, lead, zinc, magnesite and phosphates. The Discussion Note also computes the nominal and effective rates of minerals and metals. It also summarises the status of foreign investment and the bilateral relations with other mining jurisdictions



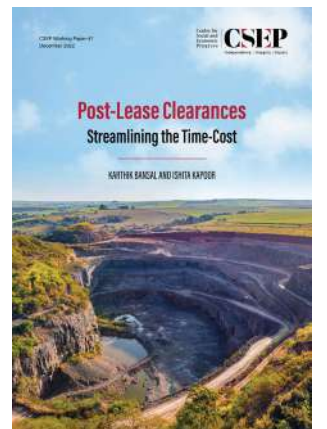
An updated version of the Working Paper [Critical Minerals in India: Assessing Their Criticality and Projecting Their Needs for Green Technologies](#) was released in 2022. The paper by Rajesh Chadha and Ganesh Sivamani assesses the criticality level of 23 select minerals for India's manufacturing sector. The study results point to policy recommendations for ensuring uninterrupted supplies of critical minerals through enhanced domestic mineral exploration and extraction and assured sources elsewhere. The [Policy Brief](#) on critical minerals for India was extracted from the Working Paper and contained the key takeaways and recommendations on securing India's critical mineral needs.

The blog piece [New Mining Techniques: Exploring the Deep Sea](#) by Ishita Kapoor discusses deep seabed mining as it presents newer opportunities to mine minerals from under the surface of the earth. The blog discusses the framework and targets set by India and compares them to global practices.



In [Mineral Royalty Rates: A Policy Review](#), Rajesh Chadha and Ishita Kapoor analyse the mineral royalty rates in India and compare them to global practices while suggesting policy changes to address the issues in the Indian mineral royalty system. Mineral royalty is the economic rent due to the sovereign owner (government) in exchange for the right to extract mineral substances. India's mineral royalty rates are among the highest in the world, thus, impacting the competitiveness of the mining sector. The royalty payments over and above the auction premia put a heavy burden on the mining companies. Adjusting the rates in alignment with the global best practices will facilitate investment and development in the mining sector.

The Working Paper [Post-lease Clearances: Streamlining the Time-Cost](#) by Karthik Bansal and Ishita Kapoor discusses the second stage of the mining life cycle, that is, obtaining the mining clearances. This stage includes addressing the issues of displacement and rehabilitation of the local communities through public hearings. The second stage also assesses the impact of mining on the environment, forest and wildlife. The paper includes three case studies on Jharkhand, Odisha and Karnataka to highlight procedural problems with these regulations. Based on the observations related to the case studies and the procedural norms involved, several regulatory reforms including pre-embedded clearances, social impact assessment and single-window processes are suggested. These recommendations focus on bridging the gap between regulatory policies and long-term sustainable mining practices.



## MINING MATTERS

The mining team at CSEP started a new series called **Mining Matters**. It invites experts from India and abroad to discuss how India's mining sector can catalyse economic growth and development, ensuring fair and sustainable mining practices for the environment and affected communities.

In the first episode of Mining Matters, [Exploration – A Geologist's Perspective](#), Ishita Kapoor discusses various issues relating to exploration, auctions and sustainability, including the environment and affected communities, with Nik Senapati, President of the Australia India Business Council in Queensland.

In the second episode, [Mining for Growth and Development – A Practitioner's Perspective](#), Ganesh Sivamani discusses various issues relating to the Indian mining sector, including how it can become a catalyst for the country's growth and development. This episode features Chanakya Chaudhary, Vice-President (Corporate Services), Tata Steel.



## KEY EXTERNAL ENGAGEMENTS

- The mining team presented research work on DMF and critical minerals to students and faculty of the Indian School of Mines (IIT-ISM) Dhanbad. Other workshops and seminars the mining team participated in in 2022 include: a presentation on “Global Value Chains” to the National Defence College; presenting findings of “CSEP Sustainable Mining Attractiveness Index: District-level Study of Jharkhand” at the Jharkhand Mining Summit, organised by PHDCCI; “Recovery of Critical Minerals from Waste” in a webinar organised by Waste Wise; an overview of the mining sector and the CSEP mining research programme to the Aditya Birla Group; a workshop on the implementation of DMF funds in East India, organised by the West Bengal National University of Juridical Sciences; and a presentation on critical minerals during the Global Mining Summit, organised by CII.
- The mining team also presented papers at two conferences. The first was a presentation by Ganesh Sivamani on “Critical Minerals for India: Assessing their Criticality and Projecting

their Needs for Green Technologies” at the 25th Annual Conference on Global Economic Analysis (GTAP). Later, at the 28th International Input-Output Association Conference held in Langkawi, Malaysia, Ganesh Sivamani presented two papers: “Modelling the Impact of Clean Environment Cess: Hybrid Energy Input-Output Approach” and “A Hybrid Input-Output Table for India: Computing Sectoral Energy Needs and GHG Emissions”. In addition, the mining team has also submitted a paper on “Sustainable Mining Attractiveness Index: District-level Study of Major Mining States of India” to the World Mining Congress 2023 in Brisbane, Australia.

- Other dialogues were held with stakeholders in academia and industry, including IIT-ISM Dhanbad, International Copper Association, Mitsubishi Corporation, Ola Mobility Institute, and JSW Jindal Stainless Steel. The work on mining and critical minerals was presented to the Secretaries of the Ministries of Mines and Coal, and to NITI Aayog.

## ONGOING WORK

- The work on the next edition of the CSEP Sustainable Mining Attractiveness Index is ongoing, which follows the original study on districts of Jharkhand. This upcoming paper creates an index of 350 districts in the top 12 mining states to evaluate India’s mining industry and its effects on human development indicators through constructing a district-wise index.
- The mining research team will be working on more issues relating to India’s critical minerals supply chain resilience, including an updated list of critical minerals for India and projecting their needs for manufacturing green technologies, high-tech machinery, and energy-efficient technologies. In addition, CSEP aims to facilitate establishing a National Consortium on Critical Raw Materials, which will allow for disseminating the work to and receiving feedback from relevant stakeholders from industry, government, and academia.

## MINERALS AND MINING ADVISORY COUNCIL

- Arun Kumar**, Former Secretary, Ministry of Mines
- Ranjan Mathai**, Former Foreign Secretary
- Ajit Ranade**, Vice-Chancellor, Gokhale Institute of Politics and Economics
- Nik Senapati**, President at Australia India Business Council Ltd (Queensland)
- Rajiv Shekhar**, Professor and Director, IIT (ISM) Dhanbad
- Yashika Singh**, Vice President, Corporate Affairs, Pernod Ricard
- Suman Bery**, Member until appointment as Vice Chairman, NITI Aayog
- Vikram Singh Mehta**, Chairman and Distinguished Fellow, CSEP
- Rakesh Mohan**, President and Distinguished Fellow, CSEP

## LIST OF PUBLICATIONS, OP-EDS AND EVENTS

### WORKING PAPERS

- [Climate Change Policy for Developing Countries](#)  
Montek Singh Ahluwalia & Utkarsh Patel
- [A Hybrid Energy Input-Output Table for India](#)  
Rajesh Chadha & Ganesh Sivamani
- [A Granular Comparison of International Electricity Prices and Implications for India](#)  
Kanak Gokarn, Nikhil Tyagi & Rahul Tongia
- [Critical Minerals for India: Assessing their Criticality and Projecting their Needs for Green Technologies](#)  
Rajesh Chadha & Ganesh Sivamani
- [Managing Climate Change: A Strategy for India](#)  
Montek Singh Ahluwalia & Utkarsh Patel
- [India’s Energy and Fiscal Transition](#)  
Laveesh Bhandari & Aasheerwad Dwivedi
- [Modelling the Impact of the Clean Environment Cess: A Hybrid Energy Input-Output Approach](#)  
Rajat Verma & Ganesh Sivamani
- [Financing Climate Change Adaptation and Mitigation in Developing Countries](#)  
Montek Singh Ahluwalia & Utkarsh Patel
- [Critical Challenges in Realising the Energy Transition: An Overview of Indian States](#)  
Laveesh Bhandari & Aasheerwad Dwivedi
- [Climate Change, Weather Anomalies, and Agriculture: Impact on Output of Major Crops in India](#)  
Shreekant Gupta, Laveesh Bhandari, Ramandeep Jakhu & Monica Sharma
- [Post Lease Clearances: Streamlining Time-Cost](#)  
Karthik Bansal & Ishita Kapoor

### POLICY BRIEF

- [Critical Minerals for India: Assessing their Criticality and Projecting their Needs for Green Technologies](#)  
Rajesh Chadha & Ganesh Sivamani

### DISCUSSION NOTES

- [District Mineral Foundation Funds: Evaluating the Performance](#)  
Rajesh Chadha & Ishita Kapoor
- [Non-fuel Minerals and Metals: Trade and FDI Scenario](#)  
Rajesh Chadha & Ishita Kapoor
- [Potential of Lower Costs of Capital for Faster Decarbonisation in Developing Regions](#)  
Rahul Tongia
- [Mineral Royalty Rates: A Policy Review](#)  
Rajesh Chadha & Ishita Kapoor

### BLOG

- [New Mining Techniques: Exploring the Deep Sea](#)  
Ishita Kapoor
- [Follow-up Thoughts on India’s Grid 2030: A Glass Half Cloudy](#)  
Rahul Tongia
- [It is Unfair to Push Poor Countries to Reach Zero Carbon Emissions too Early](#)  
Rahul Tongia

### JOURNAL ARTICLES & CONFERENCES

- [Current and Future Estimates of Marginal Emission Factors for Indian Power Generation](#)  
Rahul Tongia
- [Critical Minerals for India at Global Trade Analysis Project \(GTAP\)](#)  
Rajesh Chadha & Ganesh Sivamani
- [The Future of Climate and Development](#)  
Rakesh Mohan
- [Balancing India’s 2030 Electricity Grid Needs Management of Time Granularity and Uncertainty: Insights from a Parametric Model](#)  
Rahul Tongia
- [Jharkhand Mining Summit](#)  
Rajesh Chadha, Ganesh Sivamani & Ishita Kapoor
- [Sustained Cost Declines in Solar PV and Battery Storage Needed to Eliminate Coal Generation in India](#)  
Rahul Tongia
- [Subnational Implications from Climate and Air Pollution Policies in India’s Electricity Sector](#)  
Rahul Tongia and others
- [Inequality in Air Pollution Mortality from Power Generation in India](#)  
Rahul Tongia

### OP-EDS AND COMMENTARY

- [Preparing for a Green Energy Shift in 2022](#)  
Vikram Singh Mehta | The Indian Express
- [We Need Wardens in Our Eco Parks](#)  
Laveesh Bhandari | The Economic Times
- [Time to Rationalise Fuel Taxes](#)  
Abhishek Kumar | Financial Express
- [India Must Act on Mining and Exploration of Critical Minerals for Green Technologies](#)  
Rajesh Chadha & Ganesh Sivamani | Hindustan Times
- [How to Handle Impact of Ukrainian Crisis on India’s Energy Sector](#)  
Vikram Singh Mehta | The Indian Express

- [Russia's Ukraine Invasion; India Impact Of A 'New Energy World Order'](#)  
Vikram Singh Mehta | Strat News Global
- [Global Fuel Price Rise & How Should India Navigate The Oil Crisis](#)  
Vikram Singh Mehta | News Today: India Today
- [District Mineral Foundation Funds and Welfare of the Mine-Affected Communities](#)  
Rajesh Chadha & Ishita Kapoor | Hindustan Times
- ["It is Pragmatic, Morally Defensible for India to Buy Crude Oil from Russia at a 'Discounted' Price"](#)  
Vikram Singh Mehta | Scroll.in
- [Coping with Fiscal Effects of Energy Transition](#)  
Laveesh Bhandari & Aasheerwad Dwivedi | The Hindu BusinessLine
- [Give Coal the Attention and Effort that it Needs](#)  
Rahul Tongia | Hindustan Times
- [Power Sector must Brace for Trouble as Climate Worsens](#)  
Daljit Singh | The Print
- [जलवायु बिगड़ने के साथ भारत का बिजली सेक्टर संकट में सरकार को कुछ करना होगा |](#)  
Daljit Singh | The Print (Hindi)
- [The Ukraine Conflict has Raked up Old Dilemmas](#)  
Vikram Singh Mehta | The Indian Express
- [Policy Revamps that Will Help Scale Storage Technologies](#)  
Rahul Tongia | Emerging Technology News
- [After Ukraine, the New Energy Disorder](#)  
Vikram Singh Mehta | The Indian Express
- [How Indian Minerals and Metals Fare in Trade and FDI](#)  
Rajesh Chadha & Ishita Kapoor | Hindustan Times
- [For Energy, it's not RE vs Coal – Adopt a Portfolio Approach](#)  
Rahul Tongia | Hindustan Times
- [The Road to Energy Atmanirbharta](#)  
Vikram Singh Mehta | The Indian Express
- [India Needs Climate Action Targets for Next 10 Years](#)  
Montek Singh Ahluwalia & Utkarsh Patel | Mint
- [Why India Needs to Secure its Critical Minerals Supply Chains](#)  
Rajesh Chadha & Ganesh Sivamani | Hindustan Times
- [Natural Gas: The Bridge on India's Path to Energy Atmanirbharta](#)  
Vikram Singh Mehta | The Indian Express
- [Electricity \(Amendment\) Bill 2022: Three Features That Will be Very Difficult to Implement](#)  
Daljit Singh | The Economic Times
- [Nature Contributes to Economic Prosperity and Well-Being](#)  
Ramu Damodaran | In Depth News

- [Critical Minerals Needed for India's Green Transition](#)  
Rajesh Chadha & Ganesh Sivamani | BRE Review
- [Green Cess Needs a Makeover](#)  
Rajat Verma & Ganesh Sivamani | The Hindu BusinessLine
- [Are Current Climate Initiatives Unfair to Developing Nations?](#)  
Rahul Tongia | NPR Marketplace (Podcast)
- [Was COP27 a Cop-Out?](#)  
Montek Singh Ahluwalia & Utkarsh Patel | Mint
- [COP27: Joining the Dots Between Binsar and Sharm El-Sheikh](#)  
Vikram Singh Mehta | The New Indian Express
- [Four Steps to Make India's Energy Transition Less Painful](#)  
Aasheerwad Dwivedi

#### EVENTS

- [Climate Change Policy for Developing Countries](#)  
Flagship Seminar
- [From Grey to Green: Net-zero Transition Opportunities for India](#)  
Flagship Seminar
- [Energy Outlook Globally and in India – Dialogue between Spencer Dale and Montek Singh Ahluwalia](#)  
Seminar
- [Envisioning 2060: Opportunities and Risks for Emerging Markets](#)  
Flagship Seminar

#### MINING MATTERS

- [Mining Matters Episode 1: Exploration – A Geologist's Perspective](#)  
Nik Senapati and Ishita Kapoor
- [Mining Matters Episode 2: Mining for Growth and Development – A Practitioner's Perspective](#)  
Chanakya Chaudhary and Ganesh Sivamani



# FOREIGN POLICY AND SECURITY

The Foreign Policy and Security vertical conducts policy-relevant research on India's role in a changing regional and global order. Our experts focus on strategic challenges such as regional connectivity in South Asia and the Indian Ocean region, the rise of China and its influence on the neighbourhood, and military modernisation. Our research also examines the political, security and economic drivers of India's deepening partnerships in the Indo-Pacific (particularly the Bay of Bengal and Southeast Asia) region and Europe. CSEP is expanding its research agenda to also examine the obstacles and opportunities in India's geo-economic engagements with Asia.





**Shivshankar Menon**  
Distinguished Fellow

## INDIA AMIDST REGIONAL AND GLOBAL TRANSITIONS

2022 has been a year of multiple transitions in the international situation, which the CSEP foreign policy and security studies vertical has analysed and attempted to understand for our audience in government and the wider strategic community. Two of our longer term studies, involving scholars from the region on China's influence in south Asia and on cooperation around the Bay of Bengal, will result in substantive reports and provide the basis for further studies on these two important issues.

Our engagement with the wider scholarly and policy community continued apace. The Sambandh Policy Dialogues on Regional Connectivity, of which there were five during 2022, have attracted considerable local and regional attention to the importance, manner, and implications of connectivity initiatives in the region. In the "Scholar's Speak" series we published 11 interviews featuring scholars working on India's periphery, including its land and maritime neighbours.

The four Tiffin Talks seminars during the year, where scholars and researchers present their ongoing work to their peers in a closed-door discussion, covered subjects ranging from the Quad and 5G to India's aid to Africa and India's military strategy in Kargil in 1999. The November seminar on archival research and its policy impact on India's strategic

history should lead to considerable spin-offs, judging by the widespread responses it evoked. This attempt to bridge the scholar-practitioner divide has been welcomed by both sides.

The year also saw CSEP organising several events and using various fora to analyse developments such as the Russian invasion of Ukraine in February, the mid-term elections in the US, and the 20th party congress of the Chinese Communist Party. The war in Ukraine has had significant second order effects on India and Asia. CSEP fellows and researchers made topical analyses of these developments as they occurred.

All in all, developments in 2022 reinforced our focus on regional connectivity, scholarship and voices and on the shifting role that China is playing in India's broader strategic environment and calculus. As we enter a new year, we hope to extend our work to three areas: The "India in Asia: Deeper Engagement" Conference in March, including China's role; the Sambandh initiative on regional connectivity and neighbourhood studies; and, global climate cooperation, India's policy and institutions, and critical minerals and materials. The portents are for more transitions to come and we intend to be there to make sense of them with our partners and collaborators.

## CONNECTIVITY AND COOPERATION IN THE BAY OF BENGAL REGION

In 2022, the Foreign Policy and Security vertical concluded a long-term study focused on connectivity in the Bay of Bengal Region. The study includes a soon to be published edited report on sectoral cooperation in the region and a webinar assessing 25 years of the regional institution, Bay of Bengal Multi-Sectoral Initiative on Economic Cooperation (BIMSTEC). We also started the Sambandh Policy Dialogue on Regional Connectivity, a closed-door forum to bridge the scholar-practitioner divide on improving geo-economics between South, and Southeast Asia, the Bay of Bengal, and the Indo-Pacific regions.

### WEBINAR | BRIDGING THE BAY OF BENGAL: BIMSTEC AND BEYOND

CSEP hosted a webinar to review the outcomes of the BIMSTEC summit as the organisation celebrated 25 years since its foundation in 1997, on 31 March, 2022.

Going beyond the regional institution, the discussion also focused on assessing the state of connectivity between South and Southeast Asia, at the heart of the Indo-Pacific. It discussed key questions such as what are the geo-economic challenges, including on the lagging trade and investments front? What are the opportunities to deepen regional development and cooperation in areas such as transportation

infrastructure, maritime, environmental, and other commons? And, how can the Bay of Bengal benefit from partnerships with extra-regional powers such as Australia, Japan, China, the United States, and the European Union?

The speakers included Amitendu Palit, Senior Research Fellow, Institute of South Asian Studies, National University of Singapore; Nishan de Mel, Executive Director, Verité Research, Sri Lanka; and Anasua B Choudhury, Senior Fellow, Observer Research Foundation, India. It was moderated by Constantino Xavier, Fellow, CSEP.



## SAMBANDH POLICY DIALOGUE ON REGIONAL CONNECTIVITY

The *Sambandh Policy Dialogue* is an online, private, and off-the-record forum for policy-makers and experts to informally exchange perspectives on connectivity and geo-economic relations between India, South, and Southeast Asia, the Bay of Bengal, and the Indo-Pacific regions.

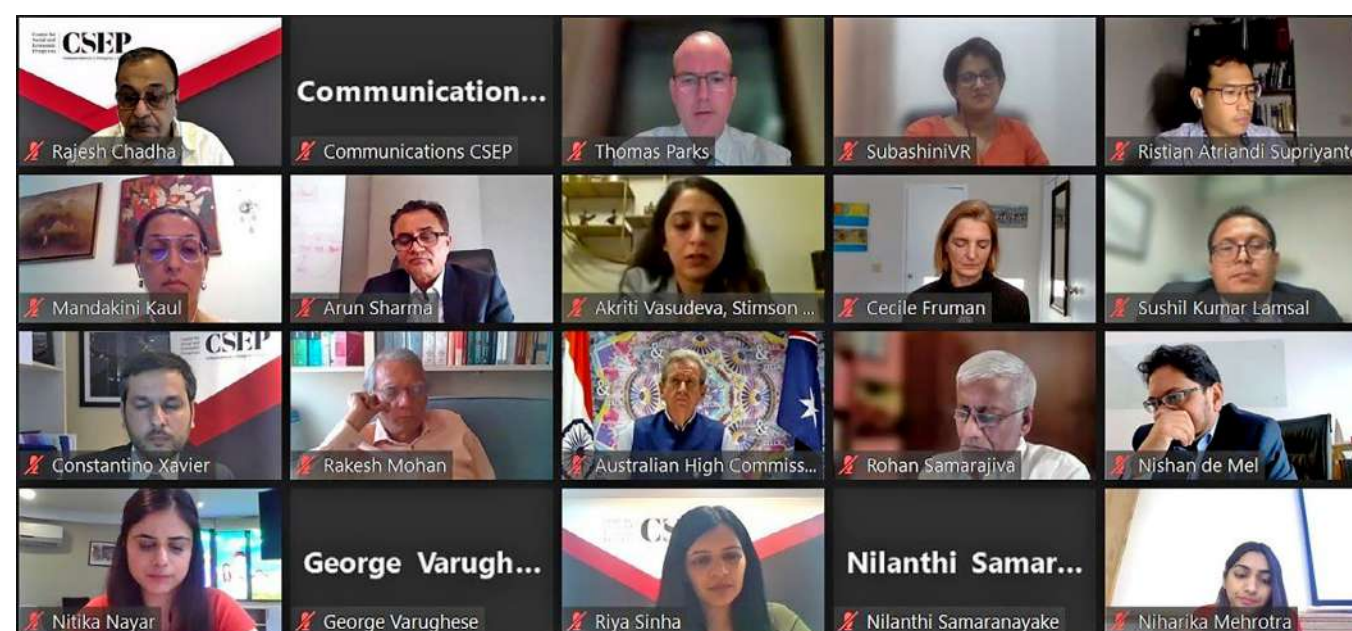
The bi-monthly dialogue is held online and seeks to correct the knowledge gap between different countries and stakeholders invested in deepening regional cooperation and integration, mainly between South Asia and ASEAN countries. This is in line with India's connectivity strategy under

the Neighbourhood First and Act East policies to intensify ties with the rest of Asia.

It focuses on the geo-economic ties between India and its land and maritime neighbours in South and Southeast Asia. Besides countries from this broader region, the dialogue also involves stakeholders from extra-regional actors (including Japan, the United States, Australia and the European Union) and institutions (including BIMSTEC, ASEAN, World Bank, Asian Development Bank) that are committed to bridging India's Indo-Pacific connectivity gap.

### CSEP HOSTED FIVE SAMBANDH POLICY DIALOGUES IN 2022:

- "Australia's Connectivity Initiatives in the Bay of Bengal" (29 March, 2022) with Barry O'Farrell, High Commissioner of Australia to India
- "Thailand as a Geo-economic Corridor between South and Southeast Asia" (27 April, 2022) with Sihanak Phuangketkeow, former Permanent Secretary, Ministry of Foreign Affairs, Thailand
- "Sri Lanka's Economic Crisis: Internal and External Dimensions" (26 May, 2022) with Indrajit Coomaraswamy, former Governor of the Central Bank of Sri Lanka (in partnership with Verité Research, Sri Lanka)
- "Deepening Economic Linkages between South and Southeast Asia" (13 July, 2022) with Cecile Fruman, Director, Regional Integration and Engagements, and Nora Dihel, Senior Economist at the World Bank
- "Bangladesh's Approach to Connectivity and the Indo-Pacific" (31 October, 2022) with Shahidul Haque, former Foreign Secretary of Bangladesh



## SAMBANDH SCHOLARS SPEAK

Sambandh Scholars Speak is a series of interviews with scholars and experts that features evidence-based research (books, journal articles, reports) on South Asia and India's wider periphery with a focus on regional studies and cross-border connectivity. In 2022, we published 11 blogs on a range of topics, including the strategic history and importance of Ladakh and Sikkim; regional transportation, connectivity and trade initiatives; the Taliban rule in Afghanistan; and the effects of climate change in Bangladesh. This series is edited by Nitika Nayar, Research Analyst, CSEP.



- [Decoding the Pashtuns in the Afghanistan-Pakistan Region](#): Tilak Devasher (former Special Secretary, Cabinet Secretariat, Government of India, and Member, National Security Advisory Board, India) delves into the history and key trends of the Pashtun community in Afghanistan and its strategic importance for India, in his book, *The Pashtuns: A Contested History* (2022).
- [Sikkim and the Geostrategic Lessons from Himalayan History](#): Preet Mohan Singh Malik (former Indian Ambassador to Bahrain, Cuba, Myanmar and former High Commissioner to Tanzania) reviews the history of Sikkim and its future connectivity potential in the Himalayan region that transcends the narrow India-China geostrategic lens, in his book, *Sikkim: A History of Intrigue and Alliance* (2021).
- [New Economic Ways between South and Southeast Asia](#): Cecile Fruman (Director, Regional Integration and Engagement in the South Asia Region, World Bank) and Nora Dihel (Senior Economist, World Bank) discuss new approaches to strengthening trade and revitalising economic links between South Asia and Southeast Asia, in the World Bank report, *Deepening Linkages between South and Southeast Asia* (2022).
- [India's China Conundrum: Learning from the Past?](#): Avtar Singh Bhasin (Former Director, Historical Division, Ministry of External Affairs, India) provides his insights on the reasoning behind the decisions made by top leaders that culminated in the 1962 India-China war, and how these factors continue to shape India-China relations today, in his book, *Nehru, Tibet, and China* (2021).
- [Climate Change in Bangladesh: Global Players vs Local Activism](#): Kasia Paprocki (Associate Professor, London School of Economics) discusses the duality of climate change in Bangladesh and how both local and international actors tackle its consequences, in her book, *Threatening Dystopias: The Global Politics of Climate Change Adaptation in Bangladesh* (2021).
- [Ladakh's Transformation from a Connecting Bridge to a Borderland](#): Kyle Gardner (Non-resident Scholar at the Sigur Center for Asian Studies, George Washington University) provides a comprehensive history of Ladakh's encounter with the British Empire and its transformation from a key centre of trade to a modern, disputed borderland, in his book, *The Frontier Complex: Geopolitics and the Making of the India-China Border, 1846-1962* (2021).

- [Jungle Passports: Navigating the India-Bangladesh Borderlands](#): Malini Sur (Senior Lecturer, Western Sydney University) follows the construction of India's new border fence with Bangladesh, exploring the lives of border societies who traverse difficult terrains to sustain their livelihoods and maintain kinship relations, in her book, *Jungle Passports: Fences, Mobility, and Citizenship at the Northeast India-Bangladesh Border* (2021).
- [From Insurgent Group to Interim Government: Taliban's Legitimacy and Governance in Afghanistan](#): Niels Terpstra (Assistant Professor, Utrecht School of Governance and Advisor, USG Consultancy) explores the historical trajectory of the Taliban movement in Afghanistan and details how the insurgency gained legitimacy among civilians and established territorial control by setting up a parallel administration in many districts, in his paper, *Rebel Governance, Rebel Legitimacy, and External Intervention: Assessing Three Phases of Taliban Rule in Afghanistan* (2020).
- [Fresh Perspectives on Border Studies: A Regional Account](#): Dhananjay Tripathi (Chairperson, Department of International Relations at the South Asian University) explains how borders and border regions in South Asia must play an integral role in transforming regional dynamics, and create scope for political peace and interdependent economic growth, in his book, *Re-imagining Border Studies in South Asia* (2021).
- [New Narratives from the North-East: Domestic Politics and Regional Implications](#): Sanjoy Hazarika (International Director, Commonwealth Human Rights Initiative) covers a wide range of issues in India's Northeast, such as insurgency, life in border towns, ideological differences across the region, and lived experiences of people in the NER with those living in neighbouring countries, in his book, *Strangers No More: New Narratives from India's Northeast* (2018).
- [The Media in Afghanistan: Local Perceptions of Regional Players](#): Hazrat Bahar (Faculty Member, School of Journalism at Shaikh Zayed University, Afghanistan, and Postdoctoral Fellow at Leipzig University, Germany) examines how local media portray China, India and other regional players in Afghanistan, in his book chapter, *Image of China in Afghan Media, published in China and South Asia: Changing Regional Dynamics, Development and Power Play* (ed. Rajiv Ranjan and Guo Changgang, 2022).

## CHINA'S INFLUENCE IN SOUTH ASIA

This year, the Foreign Policy and Security vertical concluded a long-term study focused on China's influence in South Asia. The study includes a soon to be published edited report examining China's growing role in Bangladesh, India, Nepal and Sri Lanka, in a range of sectors including education, public diplomacy, technology, social media, civil society, party politics, religion, and governance. We also held a three-part series of closed-door seminars on 'China's Global Influence' featuring five global experts from other democracies and their research on China's growing influence worldwide across a range of sectors.

### CHINA'S GLOBAL INFLUENCE SEMINAR SERIES

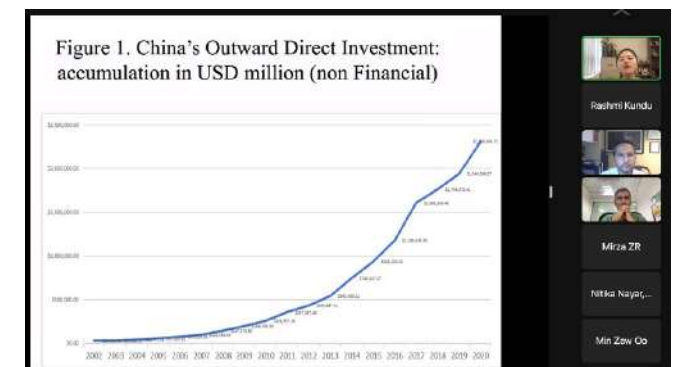
We held a three-part series of closed-door, by invitation-only seminars on '[China's Global Influence](#).' These were held online via Zoom in May 2022. This seminar series featured five global experts from other democracies and their research on China's growing influence worldwide across a range of sectors, such as infrastructure projects, technology transfers, conflict mediation, governance, and human rights.

These seminars were co-moderated by Constantino Xavier and Jabin Jacob (Shiv Nadar University), with active participation from Shivshankar Menon. These seminars were attended by scholars, experts and decision-makers (both serving and retired) from India, Nepal, Bangladesh, Bhutan, and Sri Lanka who are interested in and working on China and strategic affairs.

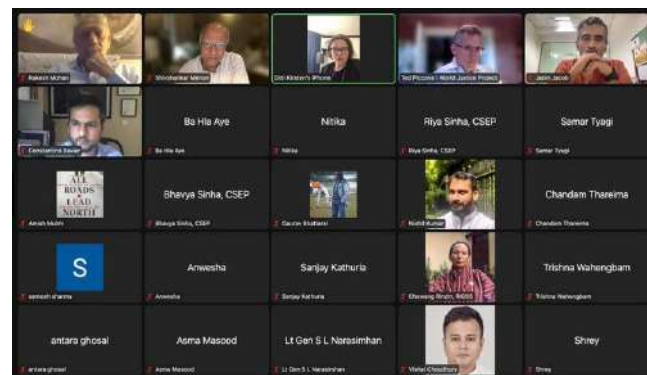
**Studying China's Global Influence: Infrastructure Projects and Conflict Mediation**, featured two experts who presented their in-depth research on two different geographies and sectors of China's growing footprint, in South America and Asia. Yun Sun, Senior Fellow and Director of the China Program at the Stimson Center, Washington DC, presented

her research on China's role in conflict mediation with cases from Myanmar and Afghanistan. Adriana Abdenur, Co-founder and Executive Director of Plataforma CIPÓ, Rio de Janeiro, presented her research on Chinese investments in railway infrastructure projects in Brazil.

In the seminar **Studying China's Global Influence: Infrastructure in Myanmar**, Xue Gong, Assistant Professor in the S Rajaratnam School of International Studies at Nanyang Technological University, Singapore, presented her research on Chinese mining companies and local mobilisation in Myanmar.



In the seminar **Studying China’s Global Influence: Technology and Human Rights**, two experts presented their in-depth research on two different areas of China’s growing footprint, in foreign technology transfers and human rights. Didi K Tatlow, former Senior Fellow of the Asia Program at the German Council on Foreign Relations, presented her research on China’s foreign technology acquisition activity and its implications on China’s global rise. Ted Piccone, Chief Engagement Officer at the World Justice Project, and Non-Resident Senior Fellow at the Brookings Institution, Washington DC, presented his Brookings paper on China’s growing activist role in the United Nations Human Rights Council.



### HOSTING SCHOLARS FROM THE REGION

On 7 December, 2022 CSEP hosted a closed-door roundtable with Tshering Eudon, Bhutanese PhD scholar from City University of Hong Kong, who presented her research on “How do Bangladesh, Sri Lanka and Maldives manage the Sino-Indian rivalry?”.

The lead discussants were Smruti Pattnaik, Research Fellow, Manohar Parrikar Institute for Defence Studies and Analyses, and Jabin Jacob, Associate Professor, Shiv Nadar University. The discussion was moderated by Riya Sinha, Associate Fellow, CSEP. The participation included representatives from the Ministry of External Affairs, National Security Council Secretariat, think tanks and academia.

### TIFFIN TALKS SERIES

As the worst of the pandemic was over, we recommenced the in-person “Tiffin” seminars held at CSEP. The Foreign Policy and Security Tiffin Talks feature scholars presenting their evidence-based research to peers and practitioners. This series of closed-door seminars seeks to facilitate dialogue between researchers and policymakers.

This series is co-hosted by Shivshankar Menon, Distinguished Fellow, CSEP, and Constantino Xavier, Fellow, CSEP. Participants in these seminars include representatives from the Ministry of External Affairs, the Indian military, scholars from leading think tanks and universities from India and abroad. Since August 2022, we have held four research seminars.

**India’s Military Strategy in Kargil: Lessons in Restraint and Deterrence:** This seminar was held on 31 August, 2022. Arzan Tarapore, Research Scholar at The Walter H Shorenstein Asia Pacific Research Center, Stanford University, presented his ongoing research on India’s Military Strategy in Kargil: Lessons in Restraint and Deterrence. The lead discussants were Rakesh Sharma, Distinguished Fellow, Vivekananda International Foundation, and Anit Mukherjee, Non-Resident Fellow, CSEP, Deputy Head of Graduate Studies and Assistant Professor at the S Rajaratnam School of International Studies, Nanyang Technological University, Singapore.

**Economic Assistance and Strategy: The Case of India’s Aid to Africa:** Held on 28 September, 2022, this seminar featured Chirayu Thakkar, Doctoral Candidate, National University of Singapore and King’s College London, who presented his research on Economic Assistance and Strategy: The Case of India’s Aid to Africa. The lead discussants were Mohan Kumar, Chairman, Research Information System for Developing Countries (RIS) and Professor and Dean, Office of International Affairs and Global Initiatives, O.P. Jindal Global University, and Emma Mawdsley, Professor of Human Geography, Cambridge University and Director and Fellow, Margaret Anstee Centre for Global Studies, Newham College.



### Grappling with Goliath: Assessing the Quad's Efficacy on 5G and Open Network Architectures:

This seminar was held on 27 October, 2022. Karthik Nachiappan, Research Fellow, Institute for South Asian Studies, National University of Singapore, presented his research on Assessing the Quad's Efficacy on 5G and Open Network Architectures. The lead discussants were Rama Vedashree, Advisory Board Member, IIT Bombay Trust Lab, former Chief Executive Officer, Data Security Council of India (DSCI), and former Vice-President, National Association of Software and Service Companies (NASSCOM); Gulshan Rai, former National Cyber Security Coordinator, Government of India, and former Director General, CERT-In (Indian Computer Emergency Response Team), Ministry of Communications and Information

Technology; Sanjay Bahl, Director General, CERT-In (Indian Computer Emergency Response Team), Ministry of Communications and Information Technology; and Anirudh Burman, Associate Research Director and Fellow, Carnegie India.



### The Future of India's Strategic History: Archival Research and Policy Impact:

The twelfth edition of the Foreign Policy and Security Tiffin Talk series was held on 30 November, 2022. This special roundtable discussion, held in hybrid mode at CSEP and also online, featured opening remarks by Shivshankar Menon, Distinguished Fellow, CSEP, and India's former National Security Advisor and Foreign Secretary. The discussion took place in two parts.

Part I focused on a discussion on how the study of history through different sources has benefitted the understanding of India's foreign and security policies. The lead discussants included Anit Mukherjee, Non-Resident Fellow, CSEP and Associate Professor in the South Asia Programme, S Rajaratnam School of International Studies, Nanyang Technological University; Avinash Paliwal, Associate Professor of International Relations, School of Oriental and African Studies, University of London; Nicolas Blarel, Associate Professor of International Relations, Leiden University; Pallavi Raghavan, Assistant Professor of International Relations, Ashoka University; Narayani Basu, Author and Historian; and Khushi Singh Rathore, PhD candidate, Centre for International Politics, Organisation and Disarmament, Jawaharlal Nehru University.

Part II focused on a discussion on the state of archival collections and the declassification processes at various ministries, possible solutions to improve preservation and accessibility, and the impact of archival research for current and future policy-making. The lead discussants included Raghvendra Singh, former Director General, National Archives of India and Director, Nehru Memorial Museum and Library; Rahul Sagar, Associate Professor of Political Science, New York University (NYU) Abu Dhabi; Swapna Kona Nayudu, Lecturer of Global Affairs, Yale-NUS College; and Nitin Gokhale, Author and Editor-in-Chief, StratNewsGlobal.com.



## KEY EXTERNAL ENGAGEMENTS

- On 17 March, 2022, Constantino Xavier was a panelist on Unlocking Potential of Cross Border Trade Through Land Ports at the Land Ports Authority of India.
- On 6 April, 2022, Shivshankar Menon was a speaker on India's Evolving Role on the Global Stage at the Belfer Center for Science and International Affairs, Harvard Kennedy School.
- On 28 April, 2022, Constantino Xavier was a panellist on Regional Connectivity, Cross Border Power Trade, Border Infrastructure, Movement of People and Border Trade, at the Sushma Swaraj Institute of Foreign Service.
- Riya Sinha was selected as the 2022 Visiting Fellow at the Stimson Centre, Washington DC. As part of the fellowship, she spent two months in Washington DC engaging with policy makers in the Department of State, Department of Defence, representatives in the Congress as well as scholars from various think tanks and academic circles on India-US Cooperation in Infrastructure Financing in South Asia.
- On 15 June, 2022, Constantino Xavier was a speaker on the Future of Europe as an Indo-Pacific power at the 20th India Trilateral Forum in Stockholm, Sweden.
- On 1 August, 2022, Shivshankar Menon was a speaker on 75 Years of Partition: Rupture and Connectivity at the ISAS International Conference on South Asia 2022, Institute of South Asian Studies (ISAS), National University of Singapore (NUS).
- On 2 August, 2022, Constantino Xavier was invited for a lecture during the 62nd National Security and Strategic Studies Course at the National Defence College on Regional Organisations: Relevance and Impact in South Asia.
- On 10 September, 2022, Shivshankar Menon was a keynote speaker at the Kantipur Conclave 2022, Nepal.
- On 30 September, 2022, Shivshankar Menon spoke on Casting a Shadow: India and the Neighbourhood at the Centre for Policy Research (CPR) Dialogues 2022.
- On 22 November, 2022, Riya Sinha was a speaker at the Embassy of Belgium, New Delhi, Darbar 2022. She delivered a lecture on the recent developments in Sri Lanka and Bangladesh.
- On 6 December, 2022, Riya Sinha was a speaker in a panel on "Connectivity" at the 21st India Trilateral Forum. The panel was moderated by Constantino Xavier.

## NOTABLE PUBLICATIONS

- India's regional connectivity and Indo-Pacific partnerships, Constantino Xavier, *Fletcher Security Review*, June 2022
- Synopsis of Indian Thinking about China, 2018-2022, Constantino Xavier, *Seoul: The Asan Forum*, June 2022
- India, China and the Quad in South Asia. Joint US-Korea Academic Studies. Volume 33. Constantino Xavier, *Korea Economic Institute of America*, July 2022
- Making Gender Central to India's Non-Traditional Security in South Asia: Applying a Feminist Lens to India's Foreign Policy, Constantino Xavier and Riya Sinha, *New Delhi: The Asia Foundation and Kubernein Initiative*, September 2022
- Reinventing Non-Alignment in South Asia: The Foreign Policies of Nepal and the Maldives by Nicolas Blarel and Constantino Xavier, *Routledge Handbook of the International Relations of South Asia* edited by Sumit Ganguly and Frank O'Donnell, October 2022
- India: Looking to Help Frame a New Global Balance in Regional Security Outlook 2023, Constantino Xavier, *Canberra: Council for Security Cooperation in the Asia Pacific*, November 2022

## GEOPOLITICAL DEVELOPMENTS AND DIALOGUES

Against the backdrop of the Russia-Ukraine crisis, CSEP hosted foreign policy experts to share their insights on geopolitics, defence, trade and economy, climate change, and the diversified impact of the crisis on India and the Indo-Pacific region.

### THE RUSSIA UKRAINE WAR AND ITS GLOBAL IMPACT

As the Russia-Ukraine crisis escalated in early 2022, countries, including India, began reassessing their responses. For India, the situation posed a particular challenge for its geo-strategic calculus as New Delhi remained close to Moscow and is also a part of the QUAD with the US, Australia and Japan. Constantino Xavier, Fellow, CSEP discussed with Shivshankar Menon, Distinguished Fellow, CSEP and former National Security Advisor (NSA), the Russia-Ukraine crisis and the impact on India's economic interests, India's stand and its implications in the Indo-Pacific region.

### INDIA'S ECONOMIC-CLASSIFIED TIES WITH RUSSIA AND THE CONFLICT IN UKRAINE

CSEP hosted a conversation between Russia's Ambassador to India, Denis Alipov, and Jaimini Bhagwati, Distinguished Fellow, CSEP on India's economic ties with Russia and the Russia-Ukraine war. The conversation recalled Russia-India technological-economic cooperation over the years and forayed into collaborations in generating nuclear power, defence ties, and trade and investment between the two countries.

Ambassador Alipov also expressed his nation's viewpoint on the conflict in Ukraine, its implications and answered crucial questions on the loss of lives in the war.

### THE GEO-ECONOMIC EFFECTS OF THE RUSSIA UKRAINE WAR

Jaimini Bhagwati, Distinguished Fellow, CSEP, and former Indian Ambassador to the European Union, spoke to Constantino Xavier, Fellow, CSEP, about the impact of the Russia-Ukraine crisis on India's economic interests in the short and medium term, from rising oil prices and inflation to bypassing sanctions on Russia. The conversation assessed how the war may affect India's position in various financial systems, including a possible currency exchange arrangement with Russia, as well as long term possibilities for India to ensure resilient supply chains for trade and a more self-reliant defence industry in cooperation with other strategic partners.

### INDIA-UK TIES AND GLOBAL ISSUES

In this session, Jaimini Bhagwati, with Alex Ellis, UK High Commissioner to India, examined negotiations between India and the UK on a free trade agreement, collaboration in specialised areas of defence, digital connectivity, climate change, and issues in international affairs, including the Russia-Ukraine conflict. The discussion also explored how the UK still has interests in the Indo-Pacific region through economic ties even though it is not a part of the Quadrilateral Security Dialogue (QUAD) and Indo-Pacific Economic Framework (IPEF).

The grimness of the lives lost in the Russia-Ukraine war and its impact on the global economy were also discussed with an urgent need to get Russia and Ukraine to the negotiating table and for all countries, including the West, to work towards an early cessation to the conflict.

## ONGOING WORK

### CSEP REPORT: CONNECTIVITY AND COOPERATION IN THE BAY OF BENGAL REGION

While the Bay of Bengal is located at the fulcrum of the Indo-Pacific, between the Indian subcontinent and Southeast Asia, it continues to act more as a divider than a link between land and maritime neighbours such as India, Sri Lanka, Bangladesh, Thailand or Indonesia. With the rise of competing connectivity initiatives, especially between China and the Indo-Pacific powers, there are growing concerns about conflict over natural resources, securitisation of sea lines of communication, and environmental sustainability. This risks depleting or fragmenting the Bay of Bengal regional commons and reducing the prospects of stability and welfare. New connectivity initiatives will therefore not have the desired developmental benefits unless there are commensurate cooperative and coordination

mechanisms between different states and extra-regional stakeholders. This report addresses nine areas of growing interdependence in the Bay of Bengal region and proposes solutions to reduce the connectivity-cooperation gap. The chapters review the opportunities and risks of rising connectivity and recommend policies to address them cooperatively. The contributing experts located in and around the region suggest collaborative ways to leverage geography (supply chains, trade corridors and sub-regional connectivity), build new infrastructure (railways, transshipment hubs and mutual standards) and manage the commons (maritime security, complex emergencies and sustainable fishing). The report will be launched in early 2023.

### CSEP REPORT: CHINA'S INFLUENCE IN SOUTH ASIA

After several decades of limited engagement, China has rapidly deepened and diversified its relations with India and its neighbouring countries. But beyond the economic dimension, not much is known on the other aspects of China's growing footprint in the region. While seeking to garner political, diplomatic and security influence, China is now an influential actor entangled in the various domestic processes of these South Asian democracies, from shaping public opinion to influencing policy-making. As with other great powers, China's objective is two-fold: to encourage policies that are favourable, and to pre-empt decisions that would go against its core interests. This report assesses how China is becoming an increasingly influential actor beyond just trade and

other economic ties with India and its neighbours. Based on eight case studies by analysts and scholars from Bangladesh, Nepal, India and Sri Lanka, the report examines China's growing role in a range of sectors in these four countries, including education, public diplomacy, technology, social media, civil society, party politics, religion, and governance. It is among the first systematic, case study and evidence-based analysis of China's new methods and strategies to engage with South Asia. Going beyond an India-centric perspective, the report also expands our understanding of how other South Asian countries perceive China, including their own interests and concerns. The report will be launched in early 2023.



## SAMBANDH: REGIONAL CONNECTIVITY INITIATIVE

We will continue our work on CSEP's Initiative on Regional Connectivity, Sambandh. Started in 2020, the research initiative has produced new empirical research mapping India's relations with its neighbouring countries in South Asia, Southeast Asia, the Bay of Bengal and the larger Indo-Pacific regions. We are planning to expand our work on cross-border energy trade, submarine communication cables, coastal and port connectivity, and railway connectivity. Other ongoing studies are focusing on India's approach to regional institutions to deal with health emergencies; on the capacity, staffing and expertise of India's diplomatic missions in neighbouring countries; and an assessment of India's economic tools and institutions for development cooperation in South Asia. We also plan to continue the bi-monthly Sambandh Policy Dialogues on Regional Connectivity, featuring key stakeholders from South, Southeast Asia and beyond.

## GLOBAL CLIMATE COOPERATION AND CRITICAL MINERALS SECURITY

In 2023, the Foreign Policy and Security vertical will add a new research stream on India's ambitious climate agenda. We will focus on India and global climate cooperation frameworks to assess India's engagements across existing bilateral, mini-lateral, and multilateral frameworks to prioritise climate mitigation and achieve Net Zero targets. This new research initiative will also propose national strategies and institutions for India to partner internationally and secure critical mineral supplies for developing green technologies.

## LIST OF PUBLICATIONS, OP-EDS AND EVENTS

### BOOKS AND CHAPTERS

- [Applying a Feminist Lens to India's Foreign Policy: A Compendium of Essays](#)  
Constantino Xavier & Riya Sinha
- [Reinventing Non-Alignment in South Asia: The Foreign Policies of Nepal and the Maldives](#)  
Nicolas Blarel and Constantino Xavier | Routledge Handbook of the International Relations of South Asia

### BLOG

- [From Insurgent Group to Interim Government: Taliban's Legitimacy and Governance in Afghanistan](#)  
Nitika Nayar
- [Jungle Passports: Navigating the India-Bangladesh Borderlands](#)  
Jahnvi Mukul
- [Ladakh's Transformation from a Connecting Bridge to a Borderland](#)  
Antara Ghosal Singh
- [India's China Conundrum: Learning from the Past?](#)  
Shruti Jargad
- [New Narratives from the North-East: Domestic Politics and Regional Implications](#)  
Jahnvi Mukul
- [Sikkim and the Geostrategic Lessons from Himalayan History](#)  
Constantino Xavier
- [Climate Change in Bangladesh: Global Players vs Local Activism](#)  
Niharika Mehrotra
- [Fresh Perspectives on Border Studies: A Regional Account](#)  
Anushka Saxena
- [The Media in Afghanistan: Local Perceptions of Regional Players](#)  
Nitika Nayar
- [Decoding the Pashtuns in the Afghanistan-Pakistan Region](#)  
Riya Sinha
- [New Economic Ways between South and Southeast Asia](#)  
Bhavyanshi Sinha

### JOURNAL ARTICLES & CONFERENCES

- [History and National Security](#)  
Shivshankar Menon
- [Towards Control and Effectiveness: The Ministry of Defence and Civil-military Relations in India](#)  
Anit Mukherjee

### OP-EDS AND COMMENTARY

- [Can India Push China off its Dominant Perch?](#)  
Vikram Singh Mehta | The Indian Express

- [The 'Whys' Behind China's Breathing-fire-24/7 Foreign Policy](#)  
Shivshankar Menon | Times of India
- [Don't Use Chips to Play Poker With Putin](#)  
Bhaskar Chakravorti | Foreign Policy.com
- [Why the Corporate Flight From Russia Is No Precedent for China](#)  
Bhaskar Chakravorti | Foreign Policy.com
- [India Can Act Today to Shape Tomorrow's Terms of Connectivity With Pakistan](#)  
Constantino Xavier & Riya Sinha | The Indian Express
- [Has the Government Handled the Ukraine Crisis Well?](#)  
Shivshankar Menon | The Wire
- [The Fantasy of the Free World: Are Democracies Really United Against Russia?](#)  
Shivshankar Menon | Foreign Affairs.com
- [Could S Jaishankar Don the Kissingerian Mantle?](#)  
Vikram Singh Mehta | The Indian Express
- [A Renewed Focus on India's Border Management](#)  
Riya Sinha | South Asian Voices
- [China's Engagements in South Asia](#)  
Shivshankar Menon | Institute of South Asian Studies (ISAS), National University of Singapore (NUS) (podcast)
- [Western Companies Can Help Ukraine by Sending Work](#)  
Bhaskar Chakravorti | Foreign Policy.com
- [India Could Drink Sustainably from the Spring-Wells of Development](#)  
Jaimini Bhagwati | Business Standard
- [The Indo-Pacific Economic Bloc Offers India a New Opportunity](#)  
Montek Singh Ahluwalia | Mint
- [International Day of Women in Diplomacy](#)  
Ramu Damodaran | The Korea Times
- [A New Cold War May Call for a Return to Nonalignment](#)  
Shivshankar Menon | Foreign Policy.com
- [Why is Sri Lanka in Crisis, and What Comes Next?](#)  
Constantino Xavier | Brookings Institution
- [IPEF versus RCEP](#)  
Jaimini Bhagwati | Business Standard
- [Synopsis of Indian Thinking about China, 2018-2022](#)  
Constantino Xavier | The Asan Forum
- [Nobody Wants the Current World Order: How All the Major Powers—Even the United States—Became Revisionists](#)  
Shivshankar Menon | Foreign Affairs.com
- [Seventy Five Years of Indian Foreign Policy: Key Successes, and the Gaps That Still Remain](#)  
Shivshankar Menon | The Wire

- [Drone Strikes: Targeted Killings Raise Troubling Questions](#)  
Jaimini Bhagwati | Business Standard
- [Nepal's Delicate Foreign Policy Balancing Act](#)  
Riya Sinha | South Asian Voices
- ['India's Nepal Policy has not Changed. There Will be Shifts, but Fundamentally, it's the Same Foreign Policy'](#)  
Shivshankar Menon | The Kathmandu Post
- [Putting Women at the Centre of Foreign Policy](#)  
Riya Sinha & Constantino Xavier | Hindustan Times
- [India's National Priorities are Best Served Domestically](#)  
Jaimini Bhagwati | Business Standard
- [How India Handles China will Determine Success of Foreign Policy](#)  
Shivshankar Menon
- [India-China Ties Will Only Improve With Mutual Trust, Starting With Border Talks](#)  
Shivshankar Menon | South China Morning Post
- [Of Pele, of Brazil, of Rio](#)  
Ramu Damodaran | InDepth News
- [Taiwan: An Indian View, Order from Chaos](#)  
Shivshankar Menon | Brookings Institution
- [India: Looking to Help Frame a New Global Balance](#)  
Constantino Xavier | Regional Security Outlook 2023

**IN DIALOGUE**

- [In Dialogue with Shivshankar Menon on the Russia-Ukraine War](#)  
Shivshankar Menon & Constantino Xavier
- [In Dialogue with Jaimini Bhagwati on "The Geoeconomic Effects of the Russia-Ukraine War"](#)  
Jaimini Bhagwati & Constantino Xavier
- [UK High Commissioner to India Mr Alex Ellis and Dr Jaimini Bhagwati discuss India-UK ties and Sensitive Global Issues](#)  
Jaimini Bhagwati & Alex Ellis
- [Russian Ambassador Denis Alipov speaks to Jaimini Bhagwati on India's Economic-Classified Ties with Russia & the Conflict in Ukraine](#)  
Jaimini Bhagwati & Denis Alipov

**EVENTS**

- [Australia's Connectivity Initiatives in the Bay of Bengal](#)  
Sambandh Policy Dialogue | Closed Door Webinar
- [Bridging the Bay of Bengal : BIMSTEC and Beyond](#)  
Webinar
- [Thailand as a Geo-Economic Corridor between South and Southeast Asia](#)  
Sambandh Policy Dialogue | Closed Door Webinar
- [Studying China's Global Influence | Part 1, 2 and 3](#)  
Seminar
- [Sri Lanka's Economic Crisis: Internal and External Dimensions](#)  
Sambandh Policy Dialogue | Closed Door Webinar
- [How Russia's Invasion of Ukraine has Transformed the World](#)  
Flagship Seminar
- [Master of the Game: Henry Kissinger and the Art of Middle East Diplomacy](#)  
Flagship Dialogue
- [Deepening Economic Linkages between South and Southeast Asia](#)  
Sambandh Policy Dialogue | Closed Door Webinar
- [India's Military Strategy In Kargil: Lessons In Restraint And Deterrence](#)  
Tiffin Talk
- [Economic Assistance and Strategy: The Case of India's Aid to Africa](#)  
Tiffin Talk
- [Grappling with Goliath: Assessing the Quad's Efficacy on 5G and Open Network Architectures](#)  
Tiffin Talk
- [Bangladesh's Approach to Connectivity and the Indo-Pacific](#)  
Sambandh Policy Dialogue | Closed Door Webinar
- [The Future of India's Strategic History: Archival Research and Policy Impact](#)  
Tiffin Talk

# FLAGSHIP SEMINARS AND DIALOGUES

After two years of hosting online events due to the COVID-19 pandemic, in 2022 we opened the doors of CSEP and hosted a hybrid event in May. Shanaka Jayanath Peiris, Division Chief of Regional Studies of Asia Pacific Department (APD) at the IMF; Jean-Marc Natal, Deputy Division Chief of the World Economic Studies Division in the IMF's Research Department; V Anantha Nageswaran, Chief Economic Adviser to Ministry of Finance, Government of India; and Amita Batra, Professor of Economics, School of International Studies, JNU discussed the International Monetary Fund's (IMF) Asian Regional Economic Outlook edition on ["Navigating Policy Trade-Offs and Mitigating Output Losses in Asia"](#).



The panelists discussed various factors that are a challenge in the growth of Asia and the Pacific including trade and commodity price spillovers from the Ukraine war, the tightening of financial conditions amid US monetary policy normalisation, and COVID-19 developments in some countries. The conversation focused on how fiscal policy should aim to protect the vulnerable from rising food and fuel prices, through targeted assistance; the need for monetary tightening; tackling the increase in private debt; and strengthening international trade and building supply-chain resilience.

## FROM GREY TO GREEN: NET-ZERO TRANSITION OPPORTUNITIES FOR INDIA

Held in April 2022, this seminar was based on a report by McKinsey & Company and was presented by the company's Senior Partner, Rajat Gupta. The discussion aimed to answer three key questions: Why the Net Zero equation has not closed yet; the levers that will drive decarbonisation for India; and how Indian companies are rising to the challenge to reach Net Zero emissions and opportunities for value creation. The other discussants at the seminar were Vaibhav Chaturvedi, Fellow, Council on Energy, Environment, and Water (CEEW); Swati Dsouza, Lead Analyst (India) and Coordinator, International Energy Agency (IEA); Indu K Murthy, Head of Climate, Environment and Sustainability,

CSTEP; and Rahul Tongia, Senior Fellow, CSEP. The seminar was moderated by Montek Singh Ahluwalia, Distinguished Fellow, CSEP.







### PANDEMIC, POVERTY, AND INEQUALITY: EVIDENCE FROM INDIA

In May 2022, CSEP hosted an online Flagship Seminar based on a study, issued as an IMF Working Paper, by Surjit S Bhalla, Executive Director for India, Sri Lanka, Bangladesh and Bhutan at the IMF; Karan Bhasin, PhD scholar in Econometrics and Quantitative Economics at the State University of New York at Albany; and Arvind Virmani, Chairman of the Foundation for Economic Growth and Welfare (EGROW) and President of the Forum For Strategic Initiatives (FSI, Delhi).

Based on the 2011 consumption distribution, the paper arrives at poverty estimates in India for every year from 2004-05 to 2020-21, using the World Bank's 1.9\$ PPP and 3.2\$ PPP poverty line. The paper uses growth factors derived from national Private Final Consumption Expenditure (PFCE) and State Gross Domestic Product for 33 states, and several other instruments to validate these growth factors. Surjit Bhalla presented the study while Arvind Virmani responded to the discussants - Santosh Mehrotra, Visiting Professor at the Centre for Development, Bath University, UK and Pronab Sen, Country Director, International Growth Centre's India Programme, and Editor, Indian Journal of National Income and Wealth. The session was moderated by Rakesh Mohan, President and Distinguished Fellow, CSEP.

### GANDHI'S PATIENCE: A CONVERSATION BETWEEN A POLITICAL PHILOSOPHER AND A BIOGRAPHER

The first of our Flagship Dialogues, held in June 2022, was a unique discussion on the value of patience in Mahatma Gandhi's thoughts and writings. Efficiency is an abiding feature of the modern world. It is central to how we think in a range of areas – economic, foreign, health, education, environmental, planning, travel, international relations, etc. The reduction of time is a crucial component of efficiency. The modern world is wedded to “hurrying up”. What would it mean to slow down?

This is a question that mattered to Mahatma Gandhi and it was a central part of his critique of modern civilisation. This conversation between Uday Singh Mehta, Distinguished Professor of Political Philosophy at the Graduate Center of the City University of New York and Ramachandra Guha, historian and Distinguished University Professor at Krea University, provided an interesting insight into Gandhi's thoughts on patience, how the concept featured in his writings and the stakes of patience in contemporary times.



### MASTER OF THE GAME: HENRY KISSINGER AND THE ART OF MIDDLE EAST DIPLOMACY

This very interesting online Flagship Dialogue was a conversation between the author of the book “Master of the Game: Henry Kissinger and the Art of Middle East Diplomacy”, Martin Indyk and CSEP Distinguished Fellow and former National Security Advisor of India Shivshankar Menon. Indyk, a former United States Ambassador to Israel and Special Envoy for the Israeli-Palestinian negotiations in 2013 drew from his experiences, including political frustrations and disappointments of seeing through the peace processes between Israel and Palestine. Indyk shared valuable insights on how to and how not to make peace in the Middle East.

### ASIA AND THE CHANGING GLOBAL ECONOMY: OUTLOOK AND RISKS AHEAD

This virtual Flagship Seminar, held in March 2022, discussed global recovery in the post-pandemic landscape, which is exposing fault lines between countries that are creating divergences in economic prospects, further compounded by the Russia-Ukraine conflict. In this context, and considering lessons from past crises such as the global financial crisis of 2008-09, the panelists in this session discussed how Asia can regain its primacy in leading the global economic recovery.

The session was chaired by Rakesh Mohan, President and Distinguished Fellow, CSEP. Opening remarks to set the current context were provided by Anoop Singh, Distinguished Fellow, CSEP. The panel featured Anne Krueger, Senior Research Professor of International Economics, Johns Hopkins School of Advanced International Studies; Martin Wolf, Chief Economics Commentator, Financial Times, London; and Naushad Forbes, Co-Chairman, Forbes Marshall.

# CSEP IN THE MEDIA

CSEP Distinguished Fellows, Senior Fellows and Fellows found a prominent place in the media in 2022 - both national and international. Interviews with our scholars ranged from contemporary news like the Russia-Ukraine conflict and its impact to the state of the Indian economy.

Distinguished Fellow Montek Singh Ahluwalia was interviewed by numerous media outlets including Bloomberg, The Indian Express and Times Now. In an interview with NewsLaundry, he revisited India's economic liberalisation of 1991, discussing the economic crisis, what caused it, and what led India to open up to the world. He discussed Budget 2022 with Times Now and also spoke about India's economic health and predictions for the post-Covid world with Mirror Now.

Speaking to Bloomberg Markets Asia, Montek Ahluwalia discussed the Russia-Ukraine conflict, identifying higher oil prices as a big problem for India if peace is not restored.



In an interview to Bloomberg HT, CSEP President and Distinguished Fellow Rakesh Mohan discussed how despite warnings from many economists, central banks in developed countries do not take inflation seriously and are late in responding. He also emphasised that if the Russia-Ukraine war continues, there will be serious problems in global trade, which will increase inflationary pressures.



Rakesh Mohan also spoke to Karan Thapar for The Wire on the state of the Indian economy six weeks before 2022 came to a close, focusing specifically on growth, investment, unemployment, poverty, inflation and the state of the rupee.

CSEP Chairman and Distinguished Fellow Vikram Singh Mehta spoke to India Today TV's Rajdeep Sardesai on how India can navigate the oil crisis as prices continue to rise globally. He also assessed the impact on India of gas, oil and financial sanctions on Russia following the war in Ukraine in a conversation with StratNews Global. Vikram Singh Mehta was also interviewed by CNN News 18 where he listed out a 5-point plan for India to safeguard its energy interests.



Senior Fellow, Rajesh Chadha spoke to Be Waste Wise about exploring potential ways to recover critical minerals from waste. Rahul Tongia, Senior Fellow, featured in a podcast on Zenergy, discussing system level impacts of renewable energy integration on India's grid. He also spoke about the relationship between energy technology and economic growth and how current climate initiatives are unfair toward developing nations in a podcast interview with NPR Marketplace.



Senior Fellow, Laveesh Bhandari provided insight into how India can better stride towards better and sustainable livelihoods through industrial, social and economic reforms as well as through financial literacy and financial inclusion in an interview with Indiatat.



Constantino Xavier, Fellow, CSEP spoke to Sansad TV on the promises and challenges of BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation) in the aftermath of the 5th BIMSTEC summit held in March 2022.

# COMMUNICATIONS OVERVIEW



Preparing or measuring the impact of Communications has to be necessarily preceded by the fundamental question of what strategic communication for a think tank entails. Effective research is a collaboration of great research and the ability to communicate the findings to various stakeholders. At CSEP, we aim to present and disseminate our work in a manner that makes it more accessible to all our stakeholders.

In 2022, we published 29 Working Papers and 22 other long-form research publications that include Impact Papers, Policy Briefs, Discussion Notes and Blogs, all contributing to a robust evidence base for change, and long-term impact. Research at CSEP undergoes a rigorous process of peer review at our Brown Bags. This is followed by a round of editing by seasoned editors and a final review by CSEP President Rakesh Mohan before sending the paper to the Design team. The finished work is then published on the CSEP website and made available to the public. Research impact that contributes to, benefits and influences society, environment and the economy in the country and beyond is the principal goal of all ideas, discussions and studies carried out at CSEP. The Communications team also follows a punctilious procedure of disseminating our research to important stakeholders in the government, academia, think tanks, media and civil society.

In 2021, we envisaged our events taking place in the hybrid mode. In the year 2022, we made the transition a success. We have convened over 30 major events in the last 12 months of which several were held in hybrid mode. Our Flagship Seminars saw participation from distinguished experts like Martin Wolf, Ramachandra Guha, Amitabh Kant, Anant Nageswaran, Arogyaswami Paulraj, Karan Singh, Poonam Gupta, Vinod Paul, Surjit Bhalla, and covered topics like climate change, the economy, foreign relations and healthcare. With our hybrid seminars we have been able to welcome experts in the office and reach out to an online global audience and marquee partners like the International Monetary Fund, British Petroleum and McKinsey Global Institute.

We also launched a new series entitled Flagship Dialogue in 2022. The first Flagship Dialogue was held in June with philosopher Uday Singh Mehta and eminent historian Ramachandra Guha, discussing the importance of patience for Mahatma Gandhi and its relevance in modern times. This was followed by another rare and fascinating Dialogue between policymakers and former bureaucrats YV Reddy and NK Singh which brought forth an anecdotally-rich conversation about their careers and the future of civil service in India.

<p><b>412,000</b> WEBSITE VIEWS</p>	<p><b>OUR REACH</b></p>	<p><b>3,040,116</b> ACCOUNTS ENGAGED WITH ON SOCIAL MEDIA</p>
<p><b>114,679</b> New Users</p>		<p><b>17,500+</b> NEWSLETTER SUBSCRIBERS</p>
<p><b>56,000+</b> YOUTUBE VIEWS</p>		<p><b>393</b> CITATIONS OF CSEP RESEARCH AND SCHOLARS IN MEDIA</p>

In 2022, we also introduced “In Dialogue”, a special series that provides commentary from experts on issues of national and global importance influencing India. The first episode was launched with a conversation between CSEP Distinguished Fellow and former National Security Advisor Shivshankar Menon and Fellow Constantino Xavier on the Russia-Ukraine war and its myriad implications. We have had four episodes of the In Dialogue series in 2022 and hope to have many more going forward.

The Communications team has endeavoured to strengthen our digital reach and the growing engagement on our website illustrates the impact of our research. Today, we are at 412,000 views on our website. We continue to make efforts to reach and engage audiences through Twitter, Facebook and LinkedIn. Our LinkedIn account that was created two years ago now has a following over 27,000, a significant increase from last year’s 15,680. Next year, we aim to venture further into developing new communication and outreach systems with the help of podcasts, for our audience to listen to our scholars and learn about our research, on the go.

One of the many ways we spread the word about our work is through our research newsletter. Our monthly email newsletters have been a powerful digital tool for us to connect with our 17,500+ subscribers and share with them the latest work, convenings and discussions, newspaper op-eds and commentaries from CSEP.

Our efforts to publish CSEP work in the form of opinion articles in leading newspapers have taken a great leap this year. With 119 op-eds authored by our scholars, CSEP’s research and impact have extended to new audiences thereby influencing public policy in two crucial ways: first by placing an issue for the public to consider, and secondly by appealing to policymakers. Our scholars have shared their work and expertise with major newspapers like The Indian Express, The Economic Times, Business Standard, The Hindu, among others.

Guided by our principles of independence, integrity and impact, we look forward to charting new courses, domestic and globally, to communicate CSEP’s ideas and research to influence policy and practice.

## EMERGING VOICES AT CSEP



I joined CSEP in August 2021 and have been working on medical education in India. It's been an exciting and deeply enriching experience working with some of the best minds in the country. There has also been a lot of learning from the vibrant presentations and seminars organised by other departments. I hope to meaningfully contribute to the team and make the best of this valuable opportunity to shape the health policy discourse in the country.

**Khusboo Balani, Research Associate**



I joined CSEP soon after my graduation and I am currently working in the domain of Urbanisation. My research focuses on understanding property price cycles in India from a historical perspective. What excites me most about this organisation is that I get to work on important issues pertaining to India and am given creative freedom to address them. Peer to peer learning is highly encouraged in the organisation and I have gained new insights from collaborating with fellow researchers. In the coming years, I look forward to seeing CSEP becoming a platform for more young voices within the research community.

**Annie George, Research Assistant**



I joined CSEP in July 2022. I have had the opportunity to study the fiscal structure of the country and understand the policy loopholes by working with experts in the field. Thorough research and a free space for deliberation have been the two key highlights for me at CSEP. Engaging internally with researchers and fellows; and externally with journalists, professionals, and other intellectuals have lent support and credibility to my work.

**Shruti Gupta, Research Analyst**



At CSEP, as part of the research team, I not only gained hands-on training in research but also got the opportunity to engage with people from different disciplines. One of the most delightful experiences has been the Brown Bags where researchers present their ongoing work. We not only learn about the critical challenges in other research disciplines but are also able to acquire valuable ideas for our own research. People here are helpful and we are actively encouraged to express our ideas and opinions. Such exposure has aided my professional and personal development.

**Vrinda Gupta, Research Associate**



I am extremely grateful to have begun my career with an organisation as welcoming as CSEP. My experience in the last few months has been immensely enriching. My work is focused on contributing to mainstreaming climate finance for India and charting the future course. I am hopeful about the work that we aim to do in the area of climate change study with some of the best researchers in the industry.

**Saumya Jain, Research Analyst**



CSEP has been my first full-time job since I joined right after my Master's and I have been a part of the organisation for the past three years. I had the opportunity to work on various research projects in the mining sector and interact with the government, private sector and international stakeholders. Being a part of an engaging team has been very rewarding, especially to be able to help build a programme on mining from the bottom up. One of the most enjoyable parts of my experience at CSEP is working and learning from the best researchers in the country.

**Ishita Kapoor, Research Analyst**



As an early-career researcher, joining CSEP in March 2022 has changed my life in more ways than one – more than being able to work and study the urban housing policies for low income households, I am thankful to have received the opportunity to work, interact, and learn, from the stalwarts and experts in the field. I also have learnt a great deal from my fellow colleagues who have welcomed me warmly into the family, right as I had stepped into the organisation.

**Rashmi Kundu, Research Analyst**



My time at CSEP has been enriching and educational. The institution's interdisciplinary approach and commitment to independence, integrity and impact is of keen interest to me. As a part of the Development team, I've had the opportunity to engage externally with donors as well as internally with scholars across verticals. It has helped enhance my understanding of the public policy ecosystem with a focus on institutional growth.

**Aprajita Prasad, Development Associate**



I will be completing a year at CSEP in January 2023 and my journey so far has been filled with enriching learning experiences. There is mutual respect for and a welcome reception of new ideas here which helps in holistic expansion. I work with the Communications department and coordinating with various internal teams and external stakeholders has given me a deep understanding of what entails a good communications and media strategy for an organisation. Freedom with responsibility have become the watchwords of my time here.

**Malvika Sharad, Communications Associate**



At CSEP, I have been able to explore public policy from the perspective of global health. Analysing the health system of various developing countries gave me insights into nuances of the public health issues faced by India and other emerging economies. Besides this, CSEP has provided me with the platform to interact with global health experts and discuss issues that need urgent attention from policymakers in India and across the globe.

**Alok Kumar Singh, Research Associate**



I joined CSEP as a Research Analyst in July 2022. Since then, it has been a great learning experience. Working with Fellows, Associates and Analysts across all verticals has provided a very interactive environment. Through my interactions, I have been able to learn a lot about the latest research in Energy, Health and Climate Change. Moreover, at CSEP, I get the opportunity to express opinions and ask questions freely, which broadens my understanding of contemporary issues.

**Bhavyanshi Sinha, Research Analyst**



I have been with CSEP since June 2020, working closely with experts in the Power and Energy team. I have worked on electricity retail pricing and financial health of India's electricity distribution sector. The organisation strongly believes in the research capabilities of young scholars and the freedom it gives to lead research studies is unparalleled. CSEP's dynamic environment has enriched my research output and its credibility as an independent and unbiased research entity has helped facilitate seamless interactions with the best in the industry.

**Nikhil Tyagi, Research Associate**

## OUR DONORS

CSEP's endeavour has been to provide practical, evidence-based recommendations to the most pressing policy challenges facing India and the world today. The generous philanthropy of our donors has been instrumental in achieving this vision. It has sustained the institution's commitment to independence, impact, and integrity. The CSEP Board along with the Founders Circle members encouraged us to pursue fundraising opportunities with rigour. Moreover, the robust research agenda articulated by the President of the organisation has informed our fundraising efforts.

The support and generous contribution of our donors will accelerate the next phase of institutional growth, thus bolstering CSEP's role by bringing informed non-partisan analysis to policymakers.

### FOUNDERS CIRCLE

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CSEP aims to add new donors who will join the existing Founders Circle and be classified as Patrons of CSEP. **Walmart** is the first Patron of CSEP.

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# FINANCIALS

CSEP RESEARCH FOUNDATION  
(Formerly known as Brookings Institution India Center)  
CIN : U74999DL2013NPL248687

BALANCE SHEET AS AT 31 MARCH 2022

Particulars	Note No.	As at 31 March 2022 (Rs. 00's)	As at 31 March 2021 (Rs. 00's)
<b>I. EQUITY AND LIABILITIES</b>			
<b>1 Shareholders' Funds</b>			
(a) Share capital	3	1,000	1,000
(b) Corpus fund		38,90,000	38,90,000
(c) Reserves and surplus	4	(9,14,214)	(7,65,845)
		<b>29,76,786</b>	<b>31,25,155</b>
<b>2 Non-Current Liabilities</b>			
(a) Long-term provisions	5	14,586	11,405
<b>3 Current Liabilities</b>			
(a) Trade Payable		-	-
Total outstanding dues to micro enterprises and small enterprises		-	-
Total outstanding dues of creditors other than micro enterprises and small enterprises	6	26,228	17,387
(b) Short term provision	7	10,602	3,090
(c) Other current liabilities	8	10,65,618	7,42,359
		<b>11,02,448</b>	<b>7,62,836</b>
<b>Total</b>		<b>40,93,820</b>	<b>38,99,396</b>
<b>II. ASSETS</b>			
<b>1 Non Current Assets</b>			
(a) Property, Plant & Equipment and Intangible Assets			
(i) Property Plant and Equipment	9	52,087	61,153
(ii) Intangible assets	9	2,729	7,502
		<b>54,816</b>	<b>68,655</b>
(b) Non-Current Investments	10	22,00,000	-
(c) Long term loans and advances	11	2,17,889	2,05,190
(d) Other Non-Current Assets	12	50,049	36,730
		<b>25,22,754</b>	<b>3,10,575</b>
<b>2 Current Assets</b>			
(a) Cash and cash equivalents	13	15,07,347	35,65,334
(b) Short-term loans and advances	14	316	2,720
(c) Other current assets	15	63,403	20,766
		<b>15,71,066</b>	<b>35,88,820</b>
<b>Total</b>		<b>40,93,820</b>	<b>38,99,396</b>

Summary of significant accounting policies 2

The accompanying notes form an integral part of the financial statements

As per our report of even date attached

For SURESH SURANA & ASSOCIATES LLP  
Chartered Accountants  
Firm's Reg No. 121750/WV-100610

(Kapil Kedar)  
PARTNER  
Membership Nos. 094902  
Place: Noida  
Dated: 09 August 2022

(Vikram Singh Mehta)  
Director  
DIN - 00041197  
Place: New Delhi  
Dated: 09 August 2022

On behalf of the Board of Directors  
CSEP RESEARCH FOUNDATION  
(Formerly known as Brookings Institution India Center)

(Rakesh Mohan)  
Director  
DIN - 02790744  
Place: New Delhi  
Dated: 09 August 2022



CSEP RESEARCH FOUNDATION  
(Formerly known as Brookings Institution India Center)  
CIN : U74999DL2013NPL248687

STATEMENT OF INCOME AND EXPENDITURE FOR THE YEAR ENDED 31 MARCH 2022

Particulars	Note No.	For the Year Ended 31 March 2022 (Rs. 00's)	For the Year Ended 31 March 2021 (Rs. 00's)
I. Revenue from operations	16	11,60,255	5,80,088
II. Other income	17	1,41,930	1,39,183
<b>III. Total income (I + II)</b>		<b>13,02,185</b>	<b>7,19,271</b>
<b>IV. Expenses</b>			
Employee benefits expense	18	8,30,581	4,86,148
Depreciation and amortization expense	9	25,843	31,033
Other expenses	19	5,94,130	5,60,340
Prior period expenses	20	-	2,953
<b>Total expenses</b>		<b>14,50,554</b>	<b>10,80,474</b>
<b>V. Deficit for the period (III- IV)</b>		<b>(1,48,369)</b>	<b>(3,61,203)</b>
VI. Tax expense Current tax		-	-
<b>VII. Deficit carried forward (V -VI)</b>		<b>(1,48,369)</b>	<b>(3,61,203)</b>
<b>VIII. Earnings per equity share:</b>			
Basic and diluted	27	(148)	(361)
Nominal value of equity shares		100	100

Summary of significant accounting policies 2

The accompanying notes form an integral part of the financial statements

As per our report of even date attached

For Suresh Surana & Associates LLP  
Chartered Accountants  
Firm's Reg No. 121750/WV-100610

(Kapil Kedar)  
PARTNER  
Membership Nos. 094902  
Place: Noida  
Dated: 09 August 2022

On behalf of the Board of Directors  
CSEP RESEARCH FOUNDATION  
(Formerly known as Brookings Institution India Center)

(Vikram Singh Mehta)  
Director  
DIN - 00041197  
Place: New Delhi  
Dated: 09 August 2022

(Rakesh Mohan)  
Director  
DIN - 02790744  
Place: New Delhi  
Dated: 09 August 2022



# OUR PEOPLE

## SCHOLARS



**VIKRAM SINGH MEHTA**  
Chairman &  
Distinguished Fellow



**RAKESH MOHAN**  
President &  
Distinguished Fellow



**SHIVSHANKAR MENON**  
Distinguished Fellow



**MONTEK SINGH  
AHLUWALIA**  
Distinguished Fellow



**ANOOP SINGH**  
Distinguished Fellow



**JAIMINI BHAGWATI**  
Distinguished Fellow



**SHISHIR GUPTA**  
Senior Fellow & COO



**UDAY SINGH MEHTA**  
Visiting Senior Fellow



**RAHUL TONGIA**  
Senior Fellow



**RAJESH CHADHA**  
Senior Fellow



**SANDHYA  
VENKATESWARAN**  
Senior Fellow



**LAVEESH BHANDARI**  
Senior Fellow



**JANAK RAJ**  
Senior Fellow



**RENU KOHLI**  
Senior Fellow



**CONSTANTINO XAVIER**  
Fellow



**DALJIT SINGH**  
Fellow



**RAJASEKHAR  
DEVAGUPTAPU**  
Fellow



**MADHURIMA NUNDY**  
Fellow



**DEBARPITA ROY**  
Fellow



**BHASKAR CHAKRAVORTI**  
Non-Resident Senior  
Fellow



**RICHARD K GREEN**  
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Fellow



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Fellow



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**AMSHIKA AMAR**  
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**HONEY KARUN**  
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**ABHISHEK KUMAR**  
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(Up to November 2022)



**JAYAPADMA RV**  
Consultant  
(Up to July 2022)

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**KHUSHBOO BALANI**  
Research Associate



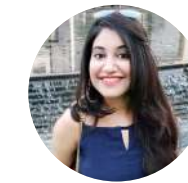
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**SHALINI CHAUHAN**  
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**DIPTI CHHUGANI**  
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(Up to September 2022)



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**AARUSHI DAVE**  
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**ANNIE GEORGE**  
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**VRINDA GUPTA**  
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**NIKHIL TYAGI**  
Research Associate

## COMMUNICATIONS AND DEVELOPMENT

---



**ARUNA BOSE**  
Senior Communications  
Manager



**YASSER AMMAR NAQVI**  
Development Manager



**APRAJITA PRASAD**  
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**RIBHU RANJAN**  
Communications Associate  
(Up to July 2022)



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Design Associate



**MALVIKA SHARAD**  
Communications Associate



**GEORGE SKARIA**  
Communications Advisor  
(Up to September 2022)



**TRISHNA WAHENGBAM**  
Communications Officer

## ADMINISTRATION AND HR

---



**KJ BASSKARAN**  
Head of Admin



**AK GUPTA**  
Senior Executive Assistant



**PREETI VIJ**  
HR and Admin Associate

## SUPPORT STAFF

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**NARENDER KUMAR**



**RISHABH KUMAR**



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