CONTEXT

Climate change represents a major threat to long-term growth and prosperity. The delayed transition towards a carbon-neutral global society will require a more challenging and abrupt transition if the 2015 Paris goals are to be reached. Recognising that climate and development priorities need simultaneous attention, emerging markets and developing economies (EMDEs), along with advanced economies (AEs), face significant challenges related to climate transition, such as the uncertain impact on growth and jobs of the transition to net zero emissions, how to finance mitigation and adaptation in the context of already high debt ratios, the potential negative spillovers from climate-related policies, the bottlenecks to a fair transition to climate neutrality, and the weak international cooperation on climate targets. This calls for an urgent need to integrate climate aspects into macroeconomic analysis and policy considerations.

MAINSTREAMING CLIMATE IN MACROECONOMICS

The macroeconomic dimensions of climate action have yet to be mainstreamed into macroframeworks used for policy analysis. Climate change poses multiple shocks and potentially large macroeconomic impacts. Understanding the transmission channels and impacts of both climate change as well as policies and financing to adapt to and mitigate climate change including transitions are important. To mainstream climate-macro dimensions, the IMF has been incorporating climate aspects throughout all the branches of its work—economic surveillance, research, and capacity development—when engaging with its member countries. Research on climate change also constitutes a major priority in the research programme at the Centre for Social and Economic Progress (CSEP).

CLIMATE FINANCE

Beyond climate-macro considerations, stakeholders are increasingly focused on how the international financial architecture can be adjusted to accelerate climate finance. Under *G20 Sustainable Finance Roadmap*, G20 and relevant international organisations aim to identify the opportunities to promote scaling up of climate and sustainable-aligned financial instruments, products, and markets, while addressing climate-related financial risks. The IMF has established the *Resilience and Sustainability Trust* (RST) in April 2022 to help countries tackle the challenges of climate change through policy support and long-term affordable financing, while catalyzing much needed private capital. Leveraging official financing from existing sources (e.g., regional development banks, World Bank) and crowding-in private finance, requires new thinking and international coordination.

OBJECTIVE OF SEMINAR

This high-level event, co-organised by the IMF and the Centre for Social and Economic Progress (CSEP), aims at strengthening the policy dialogue on how to mainstream climate action in macroeconomic management, while considering the challenges faced by EMDEs. The event brings together leading policy makers from the region, think tanks, IMF staff, and other international financial institutions to discuss the integration of climate change into macroeconomic analysis and policies, the challenges and opportunities of climate action, and options for growth-friendly climate policies and financing.

PROGRAM	
9:00 – 9:15 am	Welcoming Remarks (Welcome): Laveesh Bhandari, President, CSEP (Opening Remarks): Krishna Srinivasan, Director Asia and Pacific Department, IMF
9:15 – 9:30 am	Keynote Address: Climate Action and Economic Growth Speaker: Professor Lord Nicholas Stern, Chair of the Centre for Climate Change Economics and Policy and IG Patel Professor of Economics and Government at the London School of Economics
9:30 – 11:00 am	Macroeconomic Challenges of Climate Change for Emerging Markets and Developing Economies Coordinator and scene setter: Antonio Spilimbergo, Deputy Director, Research Department, IMF Speakers: Ritu Mathur, Senior Energy Specialist, NITI Aayog Arunabha Ghosh, Founder-CEO, Council on Energy, Environment and Water (CEEW) Renu Kohli, Senior Fellow, CSEP
11:00 – 11:15 am	Coffee Break
11:15 am – 12:45 pm	Mitigation and Adaptation Policies in EMDEs: From Theory to Practice Coordinator and scene setter: Vitor Gaspar, Director, Fiscal Affairs Department, IMF Speakers: Laveesh Bhandari, President, CSEP Naoko Ishii, Director, Center for Global Commons, Tokyo University Ulka Kelkar, Director, Climate program, World Resources Institute India
12:45 - 1:45 pm	Luncheon Luncheon Speaker: Bo Li, Deputy Managing Director, IMF
1:45 – 2:00 pm	Special Address: Suman Bery, Vice-Chairman, NITI Aayog, Government of India
2:00 – 3:30 pm	Climate Implications for Central Banking Coordinator and scene setter: Rakesh Mohan, President Emeritus, CSEP and Former Deputy Governor, RBI Speakers: M Rajeshwar Rao, Deputy Governor, Reserve Bank of India Abdur Rouf Talukder, Governor, Bangladesh Bank
3:30 – 5:00 pm	Catalyzing and Managing Capital to Finance Climate Action Coordinator and scene setter: Anoop Singh, Distinguished Fellow, CSEP and former Director of Asia and Pacific, IMF Speakers: V Anantha Nageswaran, Chief Economic Advisor, Government of India Vinod Thomas, Senior Fellow, Institute for Southeast Asian Studies, Singapore Prasad Ananthakrishnan, Monetary and Capital Markets Department, IMF
5:00 – 5:30 pm	Closing Closing Remarks: Montek S Ahluwalia, Distinguished Fellow, CSEP and former Deputy Chairman, Planning Commission of India Vote of thanks: Rakesh Mohan, President Emeritus, CSEP and former Deputy Governor, RBI
5:30 – 6:30 pm	High Tea

KEYNOTE ADDRESS



LORD NICHOLAS STERN

Professor Stern is the IG Patel Professor of Economics and Government, and Chairman of the Grantham Research Institute on Climate Change and the Environment. He was Chief Economist of the European Bank for Reconstruction and Development (1994-1999) and Chief Economist and Senior Vice President at the World Bank (2000-2003). He was Second Permanent Secretary to the UK Treasury from 2003-2005; Director of Policy and Research for the Prime Minister's Commission for Africa from 2004-2005; Head of the Stern Review on the Economics of Climate Change, published in 2006; and Head of the Government Economic Service from 2003-2007. He was President of the British Academy (2013-2017). He was made a Fellow of the Royal Society in 2014. He was knighted for services to economics in 2004 and appointed Companion of Honour in 2017.

SPECIAL ADDRESS



SUMAN BERY

Suman Bery is the Vice Chairperson, NITI Aayog. He has been associated with renowned international and national think tanks, and had a long career at the World Bank as well. He was Chief Economist of Royal Dutch Shell, and also served as Director-General (Chief Executive) of the National Council of Applied Economic Research (NCAER) in New Delhi. In his decade leading NCAER, he was at various times member of the Prime Minister's Economic Advisory Council, India's Statistical Commission, and the Reserve Bank of India's Technical Advisory Committee on Monetary Policy. His work has contributed to the political economy of reform, financial sector and banking reform, and energy trends and policy.

SPEAKERS, COORDINATORS AND SCENE SETTERS



MONTEK SINGH AHLUWALIA

Montek Singh Ahluwalia, an economist, and civil servant, was former Deputy Chairman of the Planning Commission, Government of India. He joined the Government in 1979 as Economic Adviser in the Ministry of Finance, after which he held a series of positions including Special Secretary to the Prime Minister; Commerce Secretary; Secretary in the Department of Economic Affairs; Finance Secretary in the Ministry of Finance; Member of the Planning Commission and Member of the Economic Advisory Council to the Prime Minister. In 2001, he was appointed as the first Director of the newly created Independent Evaluation Office of the International Monetary Fund. He resigned from that position in 2004 to take up the position of Deputy Chairman of the Planning Commission which he held from 2004 to 2014. He is a Distinguished Fellow at CSEP.



PRASAD ANANTHAKRISHNAN

Mr Prasad Ananthakrishnan is the Unit Chief of Climate Finance Policy Unit in the Monetary and Capital Markets Department (MCM), International Monetary Fund. He heads the IMF Task Force on Climate Finance. Prasad has led Financial Sector Assessment Program missions to Germany (2022), Hong Kong SAR (2020) and Peru (2017) and participated in the Indonesia FSAP (2016). He also headed the Strategy and Planning Unit (MCM) between 2018-April 2022. Previously, he worked in the Middle East and Central Asia Department (2007-15), where he led Article IV Consultation Missions to Kuwait, Oman, and Qatar, and participated in missions to Bahrain, Saudi Arabi and the United Arab Emirates. He has written a book on the *Macroeconomics of the Arab States of the Gulf*, published by Oxford University Press (2013), and has several other publications on macrofinancial and climate finance issues. He has a PhD and a Masters of Commerce from the University of Mumbai, and MBA from University of Pittsburg, USA.



LAVEESH BHANDARI

Laveesh Bhandari is President and a Senior Fellow at CSEP. He has been leading climate change and sustainability research at CSEP. Dr Bhandari has published widely on subjects related to sustainable livelihoods, industrial, economic and social reforms in India, economic geography and financial inclusion. He received his PhD in economics from Boston University for which he was awarded the Best Thesis in International Economics. He has taught economics at Boston University and IIT Delhi. He has been the managing editor of the Journal of Emerging Market Finance and worked at the National Council of Applied Economic Research (NCAER), New Delhi. Apart from applied economics research, Dr Bhandari has built, seeded, and exited from three companies in the research, analytics and digital domains, including Indicus Analytics, a leading economic research firm. Currently he is conducting research on issues of inclusion, India's energy transition, and how it will impact the government as well as the economy.



VITOR GASPAR

Vitor Gaspar is Director of the Fiscal Affairs Department of the International Monetary Fund. Prior to joining the IMF, he held a variety of senior policy positions in Banco de Portugal, including Head of Research and Statistics. He served as Minister of State and Finance of Portugal during 2011–13. He was head of the European Commission's Bureau of European Policy Advisers during 2007–10 and directorgeneral of research at the European Central Bank during 1998–2004. Mr Gaspar holds a PhD and a post-doctoral agregado in Economics from Universidade Nova de Lisboa; he also studied at Universidade Católica Portuguesa.



ARUNABHA GHOSH

Dr Arunabha Ghosh is an internationally recognised public policy expert, author, columnist, and institution builder. He is the founder-CEO of the Council on Energy, Environment and Water, one of the world's 20 best climate think-tanks. Dr Ghosh advises governments, industry, civil society, and international organisations around the world. He currently serves on the Government of India's G20 Finance Track Advisory Group and advises the Sherpa Track for India's G20 Presidency in 2022-23. In 2022, the UN Secretary-General appointed him to the High-level Expert Group on the Credibility and Accountability of Net-Zero Announcements by Non-State Actors. Dr Ghosh is currently Vice-Chair of the UN Committee for Development Policy, and is a member of several international expert advisory groups: Global Commission on the Economics of Water; the High-Level Group of Economists, constituted by the French president for the One Planet Lab; and the High-Level Consultative Group for the U.S. Department of State's Energy Transition Accelerator.



NAOKO ISHII

Dr Naoko Ishii is a professor and executive vice-president at the University of Tokyo, where she is also the inaugural director for the Center for Global Commons, whose mission is to catalyze systems change so that humans can achieve sustainable development within planetary boundaries. She believes academia can and should play an active role in mobilising movements towards shared goals of nurturing stewardship of the global commons. Before joining the university, Dr Ishii was CEO and chairperson of the Global Environment Facility (GEF) from 2012-2020. She formed GEF's first mid-term strategy, GEF 2020, focusing on the transformation of key economic systems. Dr Ishii entered Japan's Ministry of Finance in 1981 and served as Deputy Vice Minister of Finance from 2010-2012.



ULKA KELKAR

Ulka Kelkar is Director, Climate program, WRI India. She is an economist with two decades of experience in climate change research, capacity building and outreach. She leads WRI India's work on climate policy which aims to support India's pathway to a climate-resilient low-carbon economy through judicious national policies, carbon market mechanisms, and effective implementation in states and cities. Before joining WRI India, Ulka worked as a consultant climate assessment specialist for the Asian Development Bank, and as a research fellow with The Energy and Resources Institute (TERI) and Ashoka Trust for Research in Ecology and the Environment (ATREE).



RENU KOHLI

Dr Renu Kohli is an economist with research and practitioner experience on macroeconomic policies and issues. She has previously worked with the RBI, the IMF and thinktanks including ICRIER and the Institute of Economic Growth. Her work has focused on financial sector liberisation, capital flows and exchange rate management in emerging markets with special India focus, international macroeconomic coordination, and recently, the macroeconomic impact of decarbonisation in India.



BOLI

Mr Bo Li assumed the role of Deputy Managing Director at the IMF on August 23, 2021. He is responsible for the IMF's work on about 90 countries as well as on a wide range of policy issues. Before joining the IMF, Mr Li worked for many years at the People's Bank of China, most recently as Deputy Governor. He earlier headed the Monetary Policy, Monetary Policy II, and Legal and Regulation Departments.

Outside of the PBoC, Mr Li served as Vice Mayor of Chongqing—China's largest municipality. Mr Li was also Vice Chairman of the All-China Federation of Returned Overseas Chinese. He started his career at the New York law firm of Davis Polk & Wardwell, where he was a practicing attorney for five years.



RITU MATHUR

Dr Ritu Mathur is a climate and energy policy expert currently camped as a consultant at NITI Aayog (deputed from Shakti Sustainable Energy Foundation) tasked with setting up and leading a Modelling and Integrated Assessment Unit to strengthen integrated evidence-based decision making in the Energy-Climate domain. Prior to her current position, Dr Mathur was Senior Fellow and Director at The Energy and Resources Institute (TERI) and Adjunct Faculty at TERI-SAS. Her work contributed to national policy-making through inputs for formulation of India's Nationally Determined Contribution (NDC) targets and delineating Low Carbon Strategies for Inclusive Growth apart from influencing decision making through involvement as an expert in Working Groups across Ministries.



RAKESH MOHAN

Dr Rakesh Mohan is President Emeritus and Distinguished Fellow at CSEP. Prior to this, he was President and Distinguished Fellow, CSEP from October 2020 till May 2023. He has been closely associated with the Indian economic reforms process from the late 1980s. He was Executive Director on the Board of the International Monetary Fund, Deputy Governor of the Reserve Bank of India, Secretary, Economic Affairs, and Chief Economic Adviser of the Indian Ministry of Finance, and Economic Adviser in the Ministry of Industry. In October 2021, he was appointed to the Prime Minister's Economic Advisory Council (EAC-PM).



V ANANTHA NAGESWARAN

V Anantha Nageswaran is an Indian economist and the 18th Chief Economic Advisor to the Government of India. He served as the global Chief Investment Officer at Bank Julius Baer in Switzerland after serving as its Head of Research for Asia. Prior to this, he worked for Credit Suisse in Switzerland and Singapore, and for the Union Bank of Switzerland. He has served as the Dean of IFMR Graduate School of Business, as a professor for graduate students at the Singapore Management University, and at the Indian Institute of Management, Bangalore & Indian Institute of Management, Indore.



M. RAJESHWAR RAO

M. Rajeshwar Rao was appointed Deputy Governor of the Reserve Bank of India in October 2020. He oversees matters related to regulations, risk monitoring, internal audit, enforcement, legal affairs and corporate communications.

He has spent almost four decades at the Reserve Bank of India in various functions, including financial market operations, internal debt management, foreign exchange management, banking regulation, and international department. He has also worked in four of Reserve Bank's regional offices at Ahmedabad, Hyderabad, Chennai and New Delhi and as the Banking Ombudsman in New Delhi. He represents the Reserve Bank in the Financial Stability Board (FSB) and the Network of Central Bank and Supervisors for Greening the Financial System (NGFS). Previously, he has been a member of the Markets Committee of the BIS.

Shri Rajeshwar Rao has a Bachelor of Arts in Economics and a Master of Business Administration from the University of Cochin. He is also a Certificated Associate of the Indian Institute of Bankers.



ANOOP SINGH

Anoop Singh is Distinguished Fellow at CSEP and was Member of India's Fifteenth Finance Commission. Among his previous positions, he had a long and illustrious career at the International Monetary Fund (IMF), where his appointments included being Director of the Asia Pacific Department, Director of the Western Hemisphere Department, and Director of Special Operations in the Office of the Managing Director. He was also Special Adviser to then Governors of the Reserve Bank of India, IG Patel and Dr Manmohan Singh, and has taught at Georgetown University in Washington DC as an Adjunct Professor.



ANTONIO SPILIMBERGO

Antonio Spilimbergo is Deputy Director of the Research Department at the IMF and research fellow at the Centre for Economic Policy Research (CEPR). He received his PhD from MIT. Since 1997 he has worked at the IMF where he has been mission chief for Brazil, Italy, Slovenia, Russia, and Turkey. His papers are published in leading academic journals. His areas of interest are: international trade, development, labor economics, political economy, and macroeconomics. He coedited the books *Getting Back on Track: Growth, Employment, and Rebalancing in Europe* and *Brazil: Boom, Bust, and the Road to Recovery,* and co-wrote the book *Si vax.*



KRISHNA SRINIVASAN

Krishna Srinivasan is the Director of the Asia and Pacific Department (APD) at IMF. In this capacity, he oversees the institution's work on all countries in the Asia-Pacific region. He was previously a Deputy Director in the Western Hemisphere Department (WHD), where he oversaw the institution's work on several countries in the Americas, including Brazil, Canada, Mexico, Peru, Ecuador and the island economies of the Caribbean, the department's research activities, and its flagship product, Regional Economic Outlook (REO) for Latin America and the Caribbean. He is a co-editor of two recent books: Brazil-Boom, Bust and the Road to Recovery; and Unleashing Growth and Strengthening Resilience in the Caribbean. Before joining WHD, Krishna was the IMF's mission chief for the United Kingdom and Israel, when he was a staff member of the European Department, and before that in the Research Department, where he led the IMF's work on the G20 in the context of the global financial crisis. In the context of this work, he was a co-editor of an IMF book Global Rebalancing: A Roadmap for Economic Recovery. Krishna has been with the IMF since 1994 and has served in several departments across the institution. He secured his PhD in International Finance from Indiana University and a Masters from the Delhi School of Economics, India, and has published several papers both at the IMF and in leading academic journals.



ABDUR ROUF TALUKDER

Mr Abdur Rouf Talukder, former Senior Finance Secretary, joined as the 12th Governor of Bangladesh Bank on July 12, 2022. Mr Talukder started his professional career on February 15, 1988 as a member of the Bangladesh Civil Service (Administration cadre). He served in various capacities in the government for more than 34 years of his career. He was appointed as the Finance Secretary on July 17, 2018, and promoted to Senior Secretary on October 31, 2020. Before being appointed the Finance Secretary, he worked for more than 18 years in various positions within the Finance Division. Apart from his long career in the Finance Division, Mr Talukder has served in the Ministry of Industries, Ministry of Food, and Ministry of Information. He also worked at the Bangladesh High Commission, Kuala Lumpur as First Secretary (Commercial).



VINOD THOMAS

Vinod Thomas is a visiting senior fellow at Institute of Southeast Asian Studies, Singapore. He is the author of a new book *Risk and Resilience in the Era of Climate Change* (2023). His current research and graduate-level teaching are focused on development management, economic analysis and policy, environmental sustainability and climate change, urban and social policy, and welfare. He was Director-General, Independent Evaluation Group (IEG) and Senior Vice-President at the World Bank Group, reporting directly to the WBG's Board of Directors. He was also Director-General of independent Evaluation at the Asian Development Bank.