The fourth edition of the Indo-Pacific Business Forum was organised as a virtual event on October 28-29, 2021. Over the course of multiple sessions, the Forum saw wide-ranging discussions on major issues around business and commerce in the Indo-Pacific region. This report captures the key takeaways from the sessions held at the Forum.
Opening Remarks

• Vinai Thummalapally, U.S. Trade and Development Agency

In his opening remarks, Vinai Thummalapally, Acting Director, U.S. Trade and Development Agency, underlined why it is important to partner with India in organising this year's Indo-Pacific Business Forum. "The role of the American companies for the development of sustainable infrastructure in the Indo-Pacific region cannot be overstated." This can be achieved through 'partnership for shared prosperity', which will be driven by a core set of values such as trust and mutual respect. In this context, he urged the business and other participants to keep in mind the following three factors which are expected to drive future investment, particularly for infrastructure development:

a) post-COVID economic recovery and resilience
b) climate-smart solutions
c) digital economic developments

Keynote Remarks

• Antony Blinken, Secretary of State, U.S. Department of State

In his keynote address, Antony Blinken, U.S. Secretary of State, highlighted two major challenges that the world is facing today. They are: a) global pandemic and b) growing climate crisis. He highlighted the example of the COVID-19 vaccine development and its distribution through the QUAD initiative in the Indo-Pacific as a model of cooperation among like-minded countries. He argued for the need to address the climate crisis together. Underlining the importance of cooperation, he highlighted the example of the South Asian Regional Energy Hub and also stated that while the climate crisis is there, it also offers once in a generation business opportunities.

• S. Jaishankar, Minister of External Affairs, India

S Jaishankar, External Affairs Minister of India, delivered the other keynote address. Talking about the reality of globalisation and the relevance of multipolarity, he hoped that the emerging Indo-Pacific construct will draw other countries beyond its current geography. He argued that as the global pandemic has broadened the importance of national security, there is an imperative to develop a more resilient and shorter supply chains, which can result in a more localised form of globalisation. He provided the examples of India-led multilateral initiatives such as the International Solar Alliance and the Coalition for Disaster Resilient Infrastructure, which are directly relevant to the Indo-Pacific region.
• Jose W. Fernandez, Under Secretary for Economic Growth, Energy, and the Environment, U.S. Department of State

In his remarks, Jose W. Fernandez, Under Secretary for Economic Growth, Energy and the Environment, U.S. Department of State, highlighted why the Indo-Pacific Business Forum is a creative partnership between the governments and the companies. Citing the example of investment made by First Solar, an American manufacturer of solar panels, in the state of Tamil Nadu in India, he called for smart climate actions which can generate new trade and investment opportunities through innovative and competitive clean energy technologies. He underlined that such investments are not only generating inclusive employment opportunities, but also making the supply chains more resilient.

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Promoting a Worker-Centric Trade Policy in the Indo-Pacific to Facilitate Sustainable and Equitable Economic Recovery and Resilience

Panel: Martin Walsh (Secretary of Labor, U.S. Department of Labor), Ambassador Katherine Tai (U.S. Trade Representative, The Office of the U.S. Trade Representative), Wai-Chan Chan (Managing Director, The Consumer Goods Forum), Shoya Yoshida (General Secretary, International Trade Union Confederation (ITUC) – Asia Pacific), Muhammad Lutfi (Minister of Trade, The Republic of Indonesia)

Introduction: This panel discussed the role of trade policy as an instrument to protect workers’ rights and improve working conditions in the Indo-Pacific region. This was the first time that the trade and labour linkage was discussed at this Forum. The panellists discussed the need to ensure that economic growth went hand in hand with protecting workers rights, particularly in the post-pandemic context. There was a recognition that workers and their families have borne a huge burden during the pandemic, and accordingly, they should be at the forefront of post-pandemic recovery policies.

Key Takeaways:
• Trade policy can play a role in improving labour standards. Trade policy must take into account the needs of ordinary citizens. Workers must be made central to the formulation of trade policies.
• Governments, the private sector and industry platforms need to cooperate and jointly find solutions to social compliance issues such as labour standards in supply chains.
• Public-private partnerships are crucial for discussing topics like forced labour, and debating difficult choices between enhanced worker rights and its effects on inward investments.
• All available instruments such as public-private partnerships, market access initiatives, technical assistance, and trade preference programmes must be used for the promotion of decent working conditions in the Indo-Pacific region.
• Trade agreements should promote compliance with the provisions of the fundamental International Labour Organization (ILO) labour standards.
Mobilizing Private Investment for Build Back Better World (B3W)  
Infrastructure Priorities

**Panel:** Daleep Singh (Deputy National Security Advisor, National Security Council), Larry McDonald (Acting Assistant Secretary for International Markets, U.S. Department of the Treasury), Rahul Agrawal (Director, Actis), Abhijit Datta (Managing Director, SCG International Corporation), Keith Lawson (General Manager and Senior Vice President of Asia-Pacific and Middle East Business, Jacobs Engineering), Fuat Savas (Managing Director, Infrastructure Finance and Advisory, JP Morgan)

**Introduction:** There is an enormous need for infrastructure in developing countries. However, low quality infrastructure not only feeds corruption and exacerbates environmental degradation, but also may end up contributing to greater challenges for countries over time. On the other hand, when done the right way - with transparent, sustainable, and catalytic investments, infrastructure can be the strong foundation that spurs growth and prosperity in low- and middle-income societies. The panel discussed investment opportunities and financing structures that will draw in private investors.

**Key Takeaways:**
- Security, openness, inter-connectedness, resilience, and robustness should be the characteristics of infrastructure development in the Indo-Pacific region. It should be aiming to make everyone productive for the betterment of the society. It should be marked by high standards and should not be aiming to put any countries in any debt-traps. B3W or ‘Build Back Better’ is and should come as an alternative for the low and lower middle-income countries to develop better infrastructure.
- Various challenges that limit private investment include the absence of available bankable projects, lack of credible and accessible data and inadequately skilled human capital. There are also execution challenges such as land acquisition, political economy challenges and often, ill-defined priority action plans.
- To draw private investment, countries should set out priorities and come up with a systematic road map. They should focus more on project development and be strategic and systematic in choosing the infrastructure development plans. The procurement process must abide by standards to ensure fairness, openness and transparency. For instance, an auction-based procurement mechanism and improved payment mechanisms will ensure a fairer and smoother process – aiding in inviting foreign capital. Financial factors such as returns on investments that can mitigate the effects of inflation are also important in long-term projects.
- Infrastructure developments must progress with a vision to attain sustainability. More focus should be given on using green energy which is sustainable and environment friendly.
Expanding Internet Access in The Indo Pacific to Bridge the Digital Divide and Increase Economic Growth and Connectivity

Panel: Richard Verma (Executive Vice President of Global Public Policy and Regulatory Affairs at Mastercard), Hsueh-Hai Hu (Vice President of Chunghwa Telecom Mobile Business Group), John Baker (Senior Vice President of Business Development at Mavenir), Stephen Anderson (U.S. Acting Deputy Assistant Secretary for International Communications and Information Policy)

Introduction: In the coming decades, nearly 60% of global economic growth is going to come from the Indo-Pacific. A crucial aspect of such growth is technological and digital access. Further, the world is going to face more global challenges which can be tackled only through increased connectivity. In such a scenario, existing disparities such as a significant digital divide must be addressed. The panel discussed the need for standardised and secure common data protection policies, with effective competition markets to protect citizens across the globe.

Key Takeaways:

- To foster digital technology in the Indo-Pacific, there is a need to recognise the complex interplay of disparities of gender, the rural-urban divide as well as other economic, social and geographical barriers. This can be overcome only through private public partnerships. The Smart Cities project in India is a successful instance of such a model. Financial services industries can facilitate financial inclusion of people and Small-Medium Companies through digitalisation of processes such as identification of beneficiaries and by providing other localised solutions. It must be acknowledged that technology is an enabler and not a solution in itself.

- Taiwan's experience in forging connectivity despite its tough terrain can be a model for the rest of the Indo-Pacific. Taiwan is covered with mountainous regions and islands. Despite this, effective education and adaptive technologies for broadband connectivity have proved to be success stories. Providing subsidies for providers and consumers to buy connectivity can act as an incentive, along with other policy initiatives that can help bridge disparities.

- An immediate concern in mobile connectivity is the urgent need for an Open Radio Access Network. This will ensure new ventures with low costs and provide an open interoperable interface. Big tech companies over the past few decades had monopolised the digital market with closed interfaces. This had wiped-out competition in the market.

- There is a vibrant private sector cooperation between India and the U.S. in telecommunications and telemedicine. The need is for governments of both the countries to cooperate on standardised common security and data protection frameworks. Instead of country specific protection frameworks, a common standard digital protection framework through ASEAN or similar regional organisations is the need of the hour.
Fostering Entrepreneurship and Digital Innovation in Bangladesh and the Indo-Pacific

Panel: Ambassador Earl Miller (U.S. Ambassador, Bangladesh), Sahra English (Vice President, Global Public Policy, Mastercard), Sabhanaz Rashid Diya (Head of Public Policy, Facebook, Bangladesh), Rahat Ahmed (Founding Partner and CEO, Anchorless Bangladesh), Afeef Zubaer Zaman (Co-founder and CEO, ShopUp), Shahir Chowdhury (CEO, Shikho), Zunaid Ahmed Palak (State Minister for Information and Communications Technology, Government of Bangladesh)

Introduction: As Bangladesh celebrates the 50th anniversary of independence, its economic growth has consistently ranked among the top nations in the Indo-Pacific. A focus on robust internet penetration, accelerated digitisation, adaptability to the evolving digital ecosystem, and openness to human-centric solutions will be crucial to fostering inclusive economic growth over the next fifty years and achieving the country’s “Digital Bangladesh” vision. This session drew lessons from the stories of both U.S. and Bangladeshi firms, including entrepreneurs with deep linkages to U.S. institutions, who are creating dynamic solutions for the region.

Key Takeaways:

- Bangladesh is a success story in the Asia-Pacific and Indo-Pacific, and one of the fastest growing economies in the world. Post COVID-19 pandemic, the strong economic resilience of the country was evident, where Digital Bangladesh Vision played a crucial role. While the Bangladesh government is rightly credited for envisioning the digital ecosystem, private partnership towards enhancing and sustaining the ecosystem is equally critical.

- Digital future must be inclusive with increasing participation from women and minority-led businesses. Due to COVID-19, women and minority-led businesses were hit hardest, but digital tools facilitated quick adaptation. For example, personalised advertisements and experiences are increasingly helping businesses to connect with potential customers. Thus, it is important to educate people about utilising digital spaces to make digital experiences more personalised and meaningful.

- In the last few decades, Bangladesh has witnessed tremendous growth and consumption has reportedly increased by three times, of which 98% came from small neighborhood shops. However, these shops have not witnessed major economic growth. This decade belongs to these shops and the digital campaign must ensure their growth and opportunities. For this, technology would play a critical role as it is gender agnostic, provides an equal platform, and eases access to capital.

- U.S.-based investors are pro-entrepreneurship and trust the founders’ ability to innovate and grow. However, despite the country being in a unique position to connect with U.S. investors, the capital market in Bangladesh has been historically untapped and needs further development. The country is aggressively connecting and engaging the diaspora and must continue leveraging that. The U.S. investors must realise that the best export from Bangladesh for the next two decades would be human capital as the country has an abundant talent pool, which is only bound to increase.
• The U.S. and Bangladesh must increase conversations and the ecosystem for more trade to happen between the countries, especially digital trade. To this end, it is imperative to create policies that facilitate cross border information and knowledge sharing. This would help reap the benefits of a digital economy. The opportunities and approach to trade must be open and not restrictive.

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**Resilient Healthcare Systems: Lessons Learned to Prepare for the Future**

**Panel:** Dr. Sangeeta Reddy (FICCI & JMD Apollo Hospital), **Dr. Vaibhav Garg** (Director Govt. Affairs Strategy, Boston Scientific India Hub), **Dr. Krishna Nacha** (Wipro Ltd.), **Jo Peddhinti** (IQVIA), **Zunaid Ahmed Palak** (State Minister for Information & Communication, Government of Bangladesh)

**Introduction:** The session discussed strategies for creating resilient healthcare systems. The panellists discussed questions such as the impact of the pandemic on healthcare systems, and the systemic changes which have occurred since COVID-19. The focus of the session was on identifying the existing and future challenges, as well as opportunities that the healthcare system faces.

**Key Takeaways:**

- There is a need for collaboration between public and private healthcare systems. In order to provide easy and quick services, hospitals must have the appropriate medical equipment. During the pandemic, many private healthcare providers supported public healthcare systems and provided medical services.

- The supply side and demand side in healthcare should be balanced. The use of new and emerging technologies in the healthcare sector needs to be promoted. Resiliency of supply chains in the medical sector needs to be ensured.

- Digital health solutions are needed for patients and health care staff. The use of technology and digital healthcare tools during the pandemic assisted both the health care system as well patients. A high number of people relied on digital health applications and telemedicine facilities during the pandemic.

- There is a need for effective government health policy that helps vulnerable people at the ground level. There needs to be greater emphasis on telemedicine, novel care models, strengthening of primary health facilities and preventive healthcare. The Government of India is collaborating with private companies and trying to come up with innovative healthcare solutions for improving the country’s healthcare infrastructure.
Positioning the Indo-Pacific as a Leading Global Transportation Logistics Hub

Panel: Vinayak Chatterjee (Chairman, Confederation of Indian Industry’s National Council on Infrastructure), Takeo Konishi (Director, Asian Development Bank, India), Kawal Preet (Regional President, Asia Pacific, Middle East, and Africa, FedEx Express), Akhil Saxena (Vice President, Customer Fulfilment Operations, APAC, MENA & LATAM, Amazon)

Introduction: Rising costs in traditional manufacturing hubs, supply chain instability, and a surging e-commerce market, have presented India and the broader Indo-Pacific region with an opportunity to stimulate regional economic recovery and growth by becoming an attractive alternative for manufacturing operations and reliable freight movement. The Panel discussed the need for more integrated Indo-Pacific supply chains for building on this competitive advantage. Other topics of discussion were the need for promoting greater regional connectivity, and developing robust, diverse, and efficient logistics, freight, and transportation infrastructure, including multimodal hubs and first and last-mile connectivity.

Key Takeaways:

- Indo-Pacific is very important globally, as 60% of the global GDP comes from the Indo-Pacific region, and the region is also contributing two-thirds of the global economic growth year on year. The world’s largest economies such as the U.S., China, Japan and India; as well as six of the largest growing economies - India, Cambodia, Laos, Myanmar, Nepal and Philippines belong to this region.

- Consumer demand is determined by various factors including low prices, speed and reliability of deliveries, and access to vast selection of goods and services. A seamlessly connected and fully integrated global supply chain will set the foundation for the region to create a global marketplace. This will connect local, regional and global economies. Some key enablers for such interconnectivity are global commerce through global postal services; digitisation, standardisation and synchronisation of the customs system; setting up of dedicated free trade zones for exporting products with the multiple compliance requirements; greater multi-modal connectivity integrating all the major modes of transport and incentivising FDIs.

- Including air cargo as a special focus area in the national logistics policy of India is important for turning the envisioned ‘make in India, make for the world’ into a reality. An effective and efficient air express infrastructure will truly create global competitiveness.

- Multi-modal connectivity in India along with integration to the international gateways will transform Indian logistics. In order to facilitate seamless connectivity and a better logistics ecosystem in the country, there must be focus on soft and hard infrastructure, along with policy reforms and harmonisation of regulations. Using technologies such as Electronic Cargo Tracking System (ECTS) will help track the cargo movement and efficiently digitise the process. Synergies between economic corridors also needs to be promoted.
Remarks: Myron Brilliant, Executive Vice President and Head of the International Affairs Division, U.S. Chamber of Commerce

**Key Takeaways:**

- This edition of forum has come at a critical time for the U.S., when the country is moving from recovery to resurgence. It also comes on the heels of successful bilateral and quadrilateral summits. The Indo-Pacific strategy followed by the successive U.S. governments reflects the strengths of the United States - working towards stable market-oriented development solutions with the private sector at the helm.

- There are multiple reasons to support the Indo-Pacific strategy. For one, it is good for the region and is an effective way to attract private capital for regional development. Apart from supporting the economic empowerment and inclusion of a sizeable proportion of the world’s population, the integration of the Indo-Pacific to the global value chains will generate more employment opportunities, and increase overall security and prosperity in the region.

- The Indo-Pacific strategy to advance powerful frameworks for building partnerships cannot exist without strong links between business communities. There is an opportunity for new investments in the emerging economies of the Indo-Pacific region and the U.S. businesses want to explore those opportunities. The U.S. Chamber of Commerce thinks that the Indo-Pacific strategy should also focus on meaningful market access.

- The Indo-Pacific strategy is a great framework for addressing the global priorities. The strategy talks about climate medication and resiliency, along with other similar priorities. Economies in the region need to work closely, cohesively, and collaboratively. Businesses in the region should work in partnership with governments. Policies must be designed to address the long-standing development issues in the region.

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**Bridging the Gender Digital Divide in South Asia:**  
**Digital Innovation and Technology for Gender Equality**

**Panel:** Elsa D’Silva (Founder and Chief Executive Officer, RedDot Foundation), Joyeeta Das (Group Program Manager, Corporate Citizenship & Corporate Affairs, IBM India and South Asia), Anirban Mukerji (Head of Qualcomm for Good, India and S.E. Asia, Qualcomm)

**Introduction:** In South Asia, an estimated 52 percent of the women are without mobile phones. The inequalities between men and women in terms of digital technology access and use, has grown steadily over the past three years. It is vital that women and girls are actively included in digital and technological gains and allowed to participate equally in the digital economy. Large technology companies are addressing the various aspects of this divide by using a variety of community-centric models. This session convened by the USAID focused on analyzing the various models adopted by
private-sector tech enterprises in South Asia to address the gender digital divide and how they translate into social transformation in communities and value-creation at the corporate level.

**Key Takeaways:**

- Digital literacy, access, online safety and enabling ecosystem are crucial to bridge the gender divide in digital technology. Education is the way forward. It is important to lay the foundation at school level in the curriculum itself.
- Co-creation and public private partnership can offer various models to address the inequalities in digital technology. For instance, IBM has collaborated with the Ministry of Education and Ministry of Skill Development, India for including digital technology in educational institutions for girls (including AI and cloud computing). The project also aims at improving their skills in Science, Technology, Engineering and Math (STEM) to enhance employability across industries in India and around the world.
- Wireless Reach programmes of Qualcomm demonstrate innovative uses of mobile technologies for social good and help drive human and economic progress in underserved areas. For example, the Farm Precise Mobile App and the Fisher Friend App have been well received by women farmers and fisherwomen.
- Other than access and affordability, online safety has to be assured to prevent online harassment. Awareness programmes, campaigns and multi stakeholder engagement are important to make information accessible.
- Several schemes and programmes are being implemented by the Government of India to reduce the gender gap at various fronts. Right execution and monitoring of these initiatives are crucial to realise this goal. Digital technology is life transforming and women must have the opportunity to be a part of this revolution.

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**Unleashing Energy Innovation for Transformative Climate Action**

**Panel:** Nathaniel Dean (U.S. Department of State), Jillian Evanko (Chart Industries, Inc), Sumant Sinha (ReNew India), Gauri Jauhar (IHS Markit)

**Introduction:** Stakeholders across the globe are already one year into the decisive decade for tackling climate change impacts. This makes the upcoming COP 26 in Glasgow a very critical platform for governments, investors and private players to develop a comprehensive framework for an action-based climate agenda. It is imperative that the ambitious climate commitments put forth by the different stakeholders are converted into concrete action. This session discussed various challenges and the possible roadmap to counter the adverse effects of climate change with technological innovation and the active participation of stakeholders.
Key Takeaways:

- Focus should be on demonstration projects for renewables that are becoming more cost effective with time. Concerted efforts must be made by the government and the private parties to enable the upscaling of technology models.

- Countering climate change requires the creation of a conducive ecosystem that can drive technological innovation and prosperity. Such an ecosystem will be the product of government facilitated linkages between markets and supply chains. There should also be regulatory certainty and flexibility to achieve consistent and reliable solutions. Policy makers and beneficiaries of the policies should work together to achieve this.

- Diversification of energy sources and its usage are crucial. Market linkages and financial flows will be instrumental for energy innovation across geographical boundaries. Successful business models should be highlighted for cross-country collaboration and knowledge exchange. This will further fuel global research and development work pertaining to climate change mitigation.

- Multilaterals have a big role to play in the entire matrix of actions. However, they must be able to leverage their capital in the best possible way by taking risks and analysing return per dollar of investment thoroughly.

- Energy storage is another important area that requires public attention. There should be more emphasis on developing and deploying Intermittency Management Solutions to establish the market linkages.

Climate Smart Transportation Infrastructure for a Resilient and Sustainable Future

Panel: Vinai Thummalapally (Acting Director, U.S. Trade and Development Agency), Paul Stith (Associate VP, Global Transportation Initiatives, Black & Veatch), Carol Petsonk (Principal Deputy Asst. Secretary for Aviation and Int’l Affairs, Department of Transportation), Ashish Kumar Singh (Additional Chief Secretary (Transport & Ports), Government of Maharashtra), Eugene D. Seroka (Executive Director, Port of Los Angeles)

Introduction: This Panel brought together senior-level government and business representatives to share actions being taken to facilitate & promote investments in climate-smart transportation infrastructure. To tackle the climate crisis, new technology and solutions are needed in the transportation sectors to reduce emissions. U.S. Trade Development Agency is collaborating with countries to undertake feasibility studies and provide technological assistance to develop climate-smart infrastructure. The Government of Maharashtra is working with the Government of India to solve high density transportation problems and install solar based electric vehicle charging stations to reduce carbon emission in the transport sector. Los Angeles port has introduced a clean air action plan to reduce pollution from ships, trucks, trains, cargo-handling equipment and harbor craft.
**Key Takeaways:**

- President Biden launched the U.S. Trade and Development Agency’s Global Partnership for Climate-Smart Infrastructure – an initiative with U.S. industry and government partners that will deliver clean energy and transportation solutions to emerging markets around the world.
- USTDA’s assistance provides a roadmap to guide the electrification of vehicle fleets and deployment of EV charging infrastructure across Thailand.
- New technologies such as hyperloop, hydrogen fuel cells, and autonomous technologies need to be incorporated in the transportation sector to decarbonise it. Transition in the transport sector will decarbonise the transportation and create more employment opportunities with affordable transportation.
- Decarbonising the transportation sector is a long-term process. Investment and technology development needs to take place simultaneously in order to develop smart transportation.

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**Pathways to Indo Pacific Integration:**

*A discussion with India's Chief Economic Advisor*

**Panel:** Salil Gupte (President and Chairman, Boeing India and AmCham India), Krishnamurthy Subramanian (Chief Economic Advisor, Government of India)

**Introduction:** This session was a conversation with India’s Chief Economic Advisor (CEA). He shared his thoughts on Indian economic policy and his three-year stint as CEA. In particular, he spoke about the economic policies adopted by the government of India during the pandemic, which ensured India’s economic resilience as it emerged in the post-pandemic scenario. The CEA shared empirical facts about the Indian economy, the economic rationale behind the government’s policy decisions, as well as anecdotes of his time in office during the session.

**Key Takeaways:**

- Compared to the economic situation after similar economic shocks (such as after the 2008 global financial crisis), the Indian economy has demonstrated greater resilience as it emerges from the pandemic. Macroeconomic indicators like inflation, fiscal deficit and investment inflows have remained steady. India is seeing a V-shaped economic recovery.
- India’s early recognition of the supply shock posed by the pandemic and corresponding movement restrictions enabled prompt policy action. India focused on supply side measures, including enhanced capital expenditure through infrastructure.
- India spent its fiscal resources prudently in its pandemic assistance programmes, such as on providing food ration to the citizens instead of cash transfers.
- Various supply side reforms have been undertaken, including those which will improve competition in markets such as telecom and agriculture. Policies executed during the pandemic have enabled structural changes in the Indian economy, which will create demand at all levels of the pyramid.
• Privatisation is a part of the policy change. Except for strategic sectors, the government will not operate businesses. Disinvestment and asset monetisation will fund infrastructure development.

Remarks: Deepak Bagla, Managing Director and Chief Executive Officer, Invest India

Key Takeaways:
• The COVID-19 pandemic further catalysed some trends which were already being witnessed, for instance, the onshoring of supply chains closer to the market. During the middle of the most uncertain lockdown and at a time when global FDI flows had fallen by 35%, India received over $81 billion from around 89 countries as FDI.
• Investment coming to over 63 sectors exemplifies the fact that India today remains one of the most open economies and the private sector has the ability to play a role in each and every sector of the economy.
• In the past 70 months India has done the following to ease business: reduced 22000 compliances, simplified 13000 compliances and digitised 1200 compliances. It has also removed various redundant laws, provided single window application and clearance system for investors, and amended and consolidated labour laws. Multiple incentive schemes like PLI have also been provided to incentivise domestic manufacturing.
• India is recovering economically and is ready to bounce back to having an economic growth rate between 9-10% in this year. It is the fastest growing large economy. The current GDP of nearly $3 trillion is expected to reach $10 trillion by 2030.

Role of Private Sector in Low Carbon Future

Panel: Praveen Golash (Head- Strategy, Avaada, Kamesh Gupta (Tata Steel), Ken Haig (Amazon Web Services), Sanjib Bezbaroa (ITC), Nolty Theriot (US-India Strategic Partnership Forum (USISPF))

Introduction: Across the globe, low carbon agendas are being developed and targeted efforts are being made towards climate mitigation. Both the Government and private sector players are equally invested in setting targets for decarbonisation and making concerted efforts towards achieving them. In this backdrop, this panel explored the role and significance of the private sector in driving the low carbon growth strategy. Further, it highlighted ongoing examples of diverse initiatives and investment opportunities in different industrial sectors towards reduction of the carbon footprint.
Key Takeaways:

• As drivers of the economy, the Government and the private sector need to make efforts towards ensuring sustainable production. At the same time, sustainable consumption will also need to be ensured. For this purpose, it is critical to focus on necessary technological interventions across the entire value chain of products. This can be ensured through active collaborations and investment into technological developments towards achieving different aspects of sustainable development, including carbon capture, water management, waste management, energy efficiency, low carbon raw materials and circular economy.

• As big corporates commit themselves to net zero targets, a digital transformation and low carbon innovation seems to be an ideal way forward. Cloud enabled tools have the potential to exponentially enhance the decarbonisation process. Thus, a shift to cloud-based work structures such as cloud-based data centres have the potential to improve energy efficiency by approximately 80%, especially for power and water utilities.

• Currently, the price of low carbon technologies is high. However, in the long term, industry efforts towards large scale process modification will help in making such technologies affordable. However, it will need to be supplemented with awareness campaigns and policy advocacy efforts.

• A significant part of the carbon footprint of industries lies in the value chain. For example, in case of India’s agriculture sector, apart from on-field GHG emissions, a significant part of the emissions occur in the logistics and storage processes of the value chain. Thus, investments are needed in improving the efficiency of food processing as well as storage and transport of agricultural produce. This will ensure overall carbon mitigation in the value chain.

• In order to ensure sustainable development through industry-led initiatives, collaborative sustainable technology management systems are needed. Diverse technologies for decarbonisation need to be co-developed and implemented by creating hubs for the same. This will make the entire process cost and time efficient.

Start-ups and Innovation – Catalysts for Global Businesses

Panel: Sruthi Kannan (Head, Cisco LaunchPad), Siddarth Pai (Founding Partner and Chief Financial Officer, 3one4 Capital), Nikhil Deshpande (Director of Product Development, Intel Corporation), Avnish Sabharwal (Managing Director, Accenture Ventures and Open Innovation, India)

Introduction: Startups have emerged as most dynamic players of the business landscape. Large companies are actively looking at collaborating with startups for disruptive ideas, innovation and agile development. The Indo-Pacific region is home to many high-powered, successful startups. However, the key to sustained success - beyond the initial startup phase, is keeping up with the pace of innovation in the market. The session highlighted the challenges that can derail innovation and startup success, including finding new customer bases and suppliers, navigating local laws,
regulations, and meshing corporate and start-up culture. The panel was organised in partnership with the Confederation of Indian Industry (CII).

**Key Takeaways:**

- “Alone we can do so little and together we can do so much”, the startup industry has expanded at a breakneck speed assuring an inclusive growth model. The founding pillars to the growth model are:
  a. Enterprise networking;
  b. Digitizing wide spectrum of sectors; and
  c. Emerging technologies with unique ideas.
- Startups must track trends in innovations by ensuring ‘Where the puck is going, not where it has been.’ The model must solve local challenges and be globally scalable.
- Data in present scenario has been an astoundingly powerful tool, therefore, with emerging trends, data should not be stored in silos as a needle in the hay stack, rather communicate seamlessly to deliver an effective suit of solutions.
- It is believed that data sovereignty shall emerge as a significant challenge in the approaching environs and therefore, solutions like homographic encryption appear as an excellent way of making data secured and communicable.
- With the advent of collaborative and innovative solutions set to usher in the global arena, novel startups are breaking the glass ceiling and envisioning deep-tech solutions beyond conventional ideas. The hub and spoke model cuts across sectors from aviation to agriculture, with the ultimate objective to ensure productivity and win-win for all.
- A key reason behind India missing out on Unicorns at par with US and China is India’s complex and convoluted laws for startups. In a world where geographies have become irrelevant and sovereignty is paramount, regulatory bodies must forge a sustainable environment for the startups. Indian investors too find it difficult to comprehend startup portfolios, beyond conventional bottom line based thumb rules.

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**Executive Leadership Roundtable: Supply Chain Resilience**

**Panel:** Sarah Murphy (Chief Procurement Officer, United), Marcel Smits (Chairman, Asia/Pacific & Head of Strategy, Cargill), Joe Taets (President of ADM Asia Pacific, ADM), Elizabeth Vasquez (Chief Executive Officer, WEConnect International), Ray Pittard (Executive Vice President, Supply Chain, Engineering, IT, Trane Technologies), Kehat Shahar (Corporate Vice President, Global Supply Chain, Micron Technology), Jose W. Fernandez (Under Secretary for Economic Growth, Energy, and the Environment, U.S. Department of State)

**Introduction:** Interconnected value chains underpin shared prosperity in the Indo-Pacific region. The world is now dealing with the impact of disruptions to global supply chains caused by COVID-19. One of the immediate challenges posed in the COVID-19 induced situation was how to maintain
business continuity. In this regard, speakers at the panel discussion shared their experiences, challenges, responses to managing supply chain disruptions caused by the COVID-19 and exchanged ideas and corporate best practices on improving supply chains to bring in more resiliency of global operations.

**Key Takeaways:**

- Initially, an outbreak of the COVID-19 pandemic adversely affected the flow of goods and services, both within and across borders which created a shortage of goods at major supermarkets. In this situation, both the Public and the Private sectors worked together to keep goods flowing. On the one hand, the private sector arranged the manpower, and the logistics required to deliver essential goods, medicines etc. at the customer's doorsteps; while on the other hand, the national governments responded by simplifying customs procedures, easing border restrictions thereby ensuring a seamless flow of goods.

- To ensure continuity in doing business in the wake of COVID-19, companies adopted strategies to efficiently manage their supply chains. In this regard, the companies not only diversified their supply chains from single sourcing to multiple sourcing approach but also aimed at undertaking steps to shorten the supply chains. This created opportunities for small businesses across the Indo-Pacific. Since big businesses started sourcing products / raw materials from local manufacturers/farmers, it created opportunities for small and medium entrepreneurs (SME) to get integrated with the global supply chains. Additionally, the Multi-National Corporations (MNCs), have been mentoring and building capacities of the SMEs in areas of international standards, good agricultural practices, etc. to facilitate effective integration of the SMEs into the global value chains. Speakers also mentioned how these steps played / could play an important role in empowering and better connecting women entrepreneurs with the global value chains.

- To ensure continuity of businesses in the COVID-19 induced situation, companies have resorted to several technology-based solutions which helped efficient inventory management including managing procurement, production, and sales. Tools like Blockchain have gained greater traction during the time of COVID-19 since it allowed customers to remotely keep track of the product that they are purchasing. Additionally, digital tools were also helpful in remotely tracking cargo both domestically and internationally. The speakers underlined the need for government agencies like customs, to maintain the impetus and gradually adopt digital tools to facilitate seamless cross border trade.

- The speakers emphasized that in the COVID-19 induced business environment, efficient management of human resources played / will play an important part in maintaining business continuity. This included, among others, vaccination of workers, and allocating them in shifts, flexible timings. Additionally, businesses underlined the need for improvising business processes based on customer feedback, and this was ensured through continuous engagement with customers and getting their feedback.
Pacific Opportunities in E-Commerce

Panel: Henry Punai (Secretary General, Pacific Islands Forum), Tony Greubel (Chargé d’Affaires U.S. Embassy in Suva), Zarak Khan (Director Programmes & Initiatives, Pacific Islands Forum) and Jennifer Ula-Fruean (Board Member, Pacific Islands Private Sector Organization)

Introduction: The COVID-19 pandemic has accelerated technology adoption where e-commerce has seen tremendous growth. Users have embraced technology. Consequently, e-commerce is being utilised by many for accessing products of daily use. Going forward, e-commerce has a potential to increase trade and connectivity in the Indo-Pacific region. The event introduced opportunities for potential partnerships in the growing e-commerce space as the digital economy develops in the Indo-Pacific region.

Key Takeaways:

- Trade helps develop connectivity. Trade is not only important to foster healthy relations between countries and increase regional cooperation, and but is also important for ensuring growth. A key feature to enhance trade and connectivity is to utilise the potential of e-commerce. The Pacific region can immensely benefit from nurturing e-commerce. There needs to be a regional governance system developed and supported by governments in the Indo-Pacific region. The Government of India and the United States are taking steps in this direction by promoting regional cooperation.

- The 2050 Strategy for the Blue Pacific Continent by Pacific Islands Forum lays focus on long term on critical issues like climate change, sustainability and security. The same can be used to craft out an e-commerce promotion roadmap. Here, the private sector can be at forefront to play a critical role. Governments can provide a strong platform for entrepreneurs, specifically women entrepreneurs.

- There is a strong link of information and communication technologies (ICT) and adoption of e-commerce. This adoption lays a foundation for what can be a huge growth opportunity in the Indo-Pacific region. Already, the region has seen development of critical infrastructure for growth of ICT adoption like fibre optic connectivity among other things. However, these supply side benefits have not been enough for Small and Medium Enterprises (SMEs). This is because the investment in the Indo-Pacific region has not kept pace with other regions. Competition has increased and cost has come down, however, other challenges are there in the e-commerce space. For instance, capital investment has not been enough.

- There are immense investment opportunities in the Indo-Pacific countries which can help several countries together. For instance, the U.S. has been the biggest trading partner of Pacific countries. Specifically talking about Fiji, the U.S. investments have not only deepened the strong cultural and historical ties but also improved cross-border trade. The U.S. Commercial Service under the Department of Commerce’s International Trade Administration has been helping investors in
finding partners, taking loans, insuring against risk, trade counselling, market intelligence, commercial diplomacy, among other things. Governments need to adopt such approach for enhancing trade and connectivity in the Indo-Pacific region.

**Congressional Roundtable on U.S. Economic and Foreign Assistance Across the Indo-Pacific**

**Panel:** Ambassador Ted Osius (President, U.S.-ASEAN Business Council), The Honorable Gregory Meeks (Chairman, Committee on Foreign Affairs), The Honorable Ami Bera (Chairman, Subcommittee on Asia, the Pacific and Nonproliferation), The Honorable Steve Chabot (Ranking Member, Subcommittee on Asia, the Pacific and Nonproliferation)

**Key Takeaways:**
Ambassador Ted Osius in his opening remarks, underlined that the ASEAN (Association of Southeast Asian Nations) is one of the top trade and investment partners of the United States of America. This has been made possible due to peace, security and stability that the U.S. has provided in this region over the last 75 years. This has resulted in unprecedented reduction in poverty, leading to prosperity.

According to Gregory Meeks, Chair, Committee on Foreign Affairs, House of Representatives, U.S. Congress, the U.S. commitment in the region is here to stay as a comprehensive and strategic partnership with a large number of countries has evolved over time. The core strength of this relationship is the ability of the United States to form effective coalitions to address shared challenges. Now, the COVID-19 pandemic has upfrened the imperative of the U.S. leadership and engagement. The United States is looking for a larger role through deeper engagement in areas such as climate actions, supply chain resilience, cyber security. Among others, this will require addressing challenges to democratic deficits that this region is facing. The United States need to present a confident face before the world and that is a necessity for taking back the role of setting high-value standards.

Steve Chabot, Member of the Subcommittee on Asia, the Pacific, and Non-proliferation. U.S. Congress said that historically the American economy is based on trade and for that to happen in future the continuing U.S. leadership in this region is critical. Trade must take the centre stage again and that will require a substantially committed U.S. leadership. As the United States is not a part of the Trans-Pacific Partnership, and it will be difficult to get back into it in near future, it should consider entering into bilateral trade agreements and sectoral agreements such as on digital trade. In this context, he underlined the importance of supply chain diversification as that will help the U.S. to develop a right approach to counter coercive trade policy as pursued by China.

Ami Bera, Chair, Subcommittee on Asia, the Pacific, and Non-proliferation, House of Representatives, U.S. Congress, highlighted that for maintaining peace and security in the region, particularly maritime security, the freedom of navigation is must. He also underlined the importance
of digital trade and why it is necessary for the United States to set standards on 21st century's trade issues as they can lead to peace, stability and prosperity for all. Therefore, the United States has to work together with like-minded countries, particularly with those economies which are maturing fast as they offer more opportunities to engage through trade and investment. He argued why it is necessary to look into various chapters of the U.S.-Mexico-Canada agreement as it can be used as a template for 21st century trade agreements with an emphasis on improving working conditions, ensuring good regulatory practices and facilitating digital trade.

Private Sector Engagement in Smart Sustainable Cities: Building Partnerships to Advance Climate Targets and Green Economic Recovery

Panel: Hen Chung Heng (Senior Vice President, Systems, Alliance and Channel, Oracle Asia Pacific and Japan), Maimunah Jaffar (Director, Iskandar Regional Development Authority), Sacha Schwarzkpof (Director, Urban Design Studio Leader, AECOM), Mike Hernon (Director, Winbourne Consulting LLC)

Introduction: In order to achieve the goal of developing smart cities around the Indo-Pacific region, working with the private sector, collaboration between the governments and inclusion of civil society would lead to resilient, safe and sustainable smart cities in the coming decades. This would fulfil the need to optimise digital technology, better economy and social and environmental infrastructure. The discussion highlighted the initiatives undertaken under various smart city projects and what the future looks like. The focus of the discussion was on the primary sustainability drivers in smart city projects and examples and takeaways from the smart city projects that the panellists were engaged in.

Key Takeaways:
• The ‘Primary Sustainability Drivers’ for smart city projects are fast and reliable internet connectivity, data integration and resource allocation. Other important drivers are smart buildings and smart finance (which means enough funds should be allocated for investment in smart infrastructure). Energy efficient infrastructure is also an additional driver of sustainability.
• Transport and traffic management is equally important. A 28% reduction in travel time has been noted in cases where economic corridors have been developed. E.g., under the ASEAN’s smart city project, Thailand has introduced the Eastern Economic Corridor.
• There is a need for capacity building, inter-ministerial collaboration, education and awareness about data and climate literacy. Also, stakeholder engagement would yield more efficient results.
• The highlight of the discussion was that each region needs to identify solutions which are in line with the urban challenges faced particularly by them. Sustainability is the basis of such projects and to achieve that data and climate literacy should be inculcated.
• The initiatives need to be bottom-up and at the same time, leadership is important. Chief sustainability officers can be appointed to develop and keep a check on smart city standards (eg. ISO standardisation).
Ready for Takeoff: What’s Next in Aviation?
U.S.-Southeast Asia Aviation Cooperation Program

Panel: Verinda Fike (Regional Director, USTDA), Bart Meroney (Executive Director for Manufacturing, U.S. Department of Commerce), Ivar Satero (Airport Director, San Francisco International Airport), Shiumei Lin (VP for Public Affairs & Sustainability in Asia Pacific, UPS), John Bruns (VP, Commercial Sales & Marketing India & Southeast Asia, The Boeing Company), Steve Dickson (Administrator, Federal Aviation Administration) and Nguyen Quoc Phuong (Deputy Director General, Airports Corporation of Vietnam)

Introduction: The session discussed the aviation and aerospace sectors, with a particular focus on the Southeast Asian region. The panellists shared their views on developing and operating safe and efficient aviation systems. They also discussed strategies for the aviation sector to navigate the new normal in the post pandemic scenario. The aviation stakeholders from the public and private sectors in the U.S. and Southeast Asia focused on issues around aviation supply chains, sustainable aviation, and the emerging horizons for the aviation sector in the Indo-Pacific region.

Key Takeaways:
- Some of the fastest growing aviation markets (India, Vietnam, Indonesia) and aviation hubs (Singapore) are in the Indo-Pacific region.
- There is an uneven post-pandemic recovery underway in the commercial aviation sector. Countries with large domestic aviation markets (India, Indonesia) will recover to 2019 levels the fastest, followed by regional air traffic. Long haul air traffic will take the longest to return to pre-pandemic levels.
- As planes return to the skies, there will be a greater focus on sustainable aviation and efficiency. Aviation and aerospace industries need to be a part of the solution in dealing with the climate crisis, and reduction of aviation emissions will be a priority area.
- Commercial aviation is a very resilient industry. It has always bounced back strongly in post-crisis periods, such as after 9/11 and after the 2008 global financial crisis. Yet, the pandemic has been the biggest and deepest crisis in air travel in history.
Sustainable Development through Finance: Reducing Inequality and Promoting Responsible Production

Panel: Malachy Nugent (Vice President, Financial Services, U.S – India Strategic Partnership Forum), John Hurley (Acting U.S. Executive Director, Asian Development Bank), Lisette Cipriano (Senior Digital Technology Specialist, Financial technology, Asian Development Bank), Kaku Nakhate (President & Country head India, Bank of America) and Lawrence “Larry” Angelilli (Executive Vice president, Chief Financial officer, Money Gram)

Introduction: The session discussion featured the discussion among financial sector executives and experts on two broad themes for India and the broader Indo-Pacific region in the financial services sector. First, the highlights from the recent report “Harnessing Digitization for Remittances in Asia and the Pacific,” were presented. The session largely focused on key aspects such as digitisation as a tool for economic growth. Digitisation of remittance transfers increases speed, security, affordability and convenience. There has been a shift seen towards a cashless economy, therefore allowing reduction in the cost of handling cash. As society moves forward, the access to banks will deepen, allowing a shift to digital economy that is more sustainable and cost-effective for consumers.

Key Takeaways:

• Migration is an important tool and asset for any economy – the session highlighted the need and importance of migration and saw it as an important asset and tool for economies to grow. It further allows remittance inflows, helping the economies to grow. In 2018, the industry saw the value of $302 bn. The main receivers were India, China, Philippines, Pakistan and Vietnam. Digitisation of remittance transfers allows the increase in sustainable growth through finance along with reduction of inequality.

• During the height of COVID-19 in 2020, inflow of global remittances, including that into India, has proved to be resilient. India followed by Philippines had some of the smallest losses in 2020 compared to 2019, at 0.2 percent and 0.7 percent respectively.

• Digitisation benefits remittance flows by lowering transfer cost, increasing efficiency and improving access. There are several challenges involved in remittance transfers – high costs, de-risking, ‘Cash is King’ attitude, lack of data, and reliance on informal remittances. Whilst COVID-19 has been devastating for many people, it has also served as a catalyst for change in the remittance market. Digital remittance has significantly increased since the beginning of the pandemic.

• Need of the hour is the standardised ESG metric domestically, aligned with international goals. Several areas such as Remittance, Infrastructure for sustainable growth through finance along with reduction of inequality were discussed. The shift through Demonetization along with the Pandemic proved to be a boom for a digitalized India.

• Technology is moving in a direction to absorb shocks and climate change.
Promoting Sustainable Investments along the Mighty Mekong

Panel: W. Patrick Murphy (U.S. Ambassador to the Kingdom of Cambodia), Peter Haymond, (U.S. Ambassador to The Lao People’s Democratic Republic), Marie Damour (CDA, US Mission to Vietnam) and Michael Heath (CDA U.S. Mission in Thailand)

Introduction: The Mekong region is quite vulnerable to the vagaries of climate change, hence is in the dire need to inculcate sustainability aspect into its policies, regulations, and infrastructure. This would inter alia require sustainable investments by private players. The session deliberated on sustainable investments, largely in the background Mekong-U.S. Partnership, which included cooperation on economic connectivity, energy and climate security, human capital development, transboundary water and natural resources management, and non-traditional security.

Key Takeaways:

- Laos has the potential to export energy, including renewable energy such as hydropower, solar and wind power. There is a need for a regionally integrated energy market. Laos can also be developed as a multi-modal transportation hub to serve the region. Other areas worth exploring for investors in the country is electric vehicle, including its infrastructure and battery energy storage system, as well as agro-business, particularly exports. Asian Development Bank and the World Bank is developing connectivity through infrastructure development, including high speed railway, in the country. The idea is to integrate in the Mekong sub-region and transform it from ‘land locked’ to ‘land linked’.

- Viewing the climate change vulnerability of the Mekong delta, particularly Vietnam, there is a growing demand for adopting affordable renewable energy. Here the Mekong-U.S. partnership becomes important, which has a focus on clean energy transmission, and help implement policies and plans to attract private investment. The U.S. Consulate in Vietnam is promoting sustainable development, including promoting biodiversity, protecting environment, and creating jobs. There are around 1000 U.S. businesses operating in the Mekong delta region, many of them are committed to sustainable development and practice good service models. Support for digital transformation is/will bringing/bring economic development in Vietnam. There is also a need to better the regulatory environment to attract investment in agriculture, aviation, higher education, sustainable energy and healthcare.

- Thailand being the largest economy in the Mekong region is a key consuming country that can import energy from the region. There is an Embassy Deal Team, which facilitate creation of sustainable infrastructure in collaboration with relevant U.S. departments, particularly the U.S. Trade and Development Agency and DFC. Energy and Health are the focus areas. There is a continuous dialogue with respect to private sector engagement. The U.S.-Thai Partnership has the highest policy priority for sustainable development in the Mekong region. Thailand will be the host of next year APEC Summit.

- The U.S. embassies/consulates in the Mekong region has put in resources in association with various U.S. agencies to promote sustainable investment in the region. They can be good focal...
points for prospective investors. Countries like Japan, EU, South Korea and Australia are major investors in the whole or in part of the Mekong region.

- The U.S. government is committed to listening the people of Mekong region and shape its plans accordingly.

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**Building a Resilient Supply Chain to Power Electric Vehicles for the Future**

**Panel:** Arati Shroff (Deputy Economic Chief, American Institute in Taiwan), Sandra Oudkirk (Director, American Institute in Taiwan), James Huang (Chairman, Taiwan External Trade Development Council), James Wang (Vice President, General Director of Office of Strategy and R&D Planning, Industrial Technology Research Institute, Taiwan) and Joan Shen (Managing Director, Tangeng Advanced Vehicles, Taiwan)

**Introduction:** The panel comprised of industry, academia and government with key focus on capabilities of Taiwan to be a key partner for supply of raw materials and components for electric vehicles (EV) to the world. Electric vehicle technology is one of the most prominent sustainability tools and is a major part of green transportation. In August 2021, the U.S. government announced to make half of the new U.S. auto fleet electric by 2030. The panel deliberated the U.S.-Taiwan supply chain initiatives, and highlighted the priority actions to build a resilient supply chain to power electric vehicle, for the common climate goals of the world.

**Key Takeaways**

- U.S. is a leader in the EV innovations, led mainly by Tesla. Tesla relies on Taiwan for most of the products.
- The strengths of Taiwan are that, the country has a completely local supply chain ecosystem, an integrated platform for developing a concept into the reality, an expertise in e-scooter and mobility as a service, and has a goal of electrifying all buses in the country by 2030.
- TAV is working in four domains: production of EV batteries, production of EVs which includes e-bus and e-trucks, operation of e-bus (the new e-bus is designed especially for smart cities with more than 300 km range and 8 years of battery life) and charging station deployment.
- To enhance the resilience of supply chains, there is a need to combine the geographic and technological strengths of like-minded people and countries for a greener future. There is a need to organise the Commercial Taiwan Partnership (CTP) for both horizontal and vertical development. EVs are the energy supply system, and it is important that the source of energy generation is renewable or have a low carbon emission.
An Industry Assessment of Developments in Open Radio Access Networks

**Panel:** Alex Botting (Senior Director for International Cybersecurity Services at Venable), Azita Arvari (Head of Global Innovation Scouting in Nokia), Rajesh Gangadhar (Stl Access Solutions) Alex Rahul Vatts (Bharti Airtel limited), Durga Malladi (SVP & GM Mobile Broadband Infrastructure, Qualcomm Technologies Inc.)

**Introduction:** In the post pandemic world, the relevance and commercial viability and scalability of digital connectivity is immense. In this regard, the panellists discussed the need for ensuring cost efficient quality connectivity. Open Radio Access Network (ORAN) is currently being used by various state actors, as an open source, and it has the potential to democratise digital access.

**Key Takeaways**

- ORAN as an open-source technology has the potential to ensure digital accessibility for all. To ensure dissemination of ORAN, there is a three-level process: at the radio level unit; distributive unit; and centralised unit. At the centralised unit there is less layer of disaggregation, so the aim is to make the vendor disaggregate each layer. This would ensure optimisation and cost efficiency.
- Often 5G is perceived as just an advanced technology but 5G is connectivity. So, the separation in definition and understanding of meaning of software and hardware becomes important. A software centric architecture helps in cost efficiency for operators and accessibility of innovations for vendors.
- The speakers emphasised that the social dimension of ORAN is its cost efficiency and quality, which will in turn democratise accessibility. The development of 5G is not just a concern arising from consumer rights protection, but also from the perspective of commercial viability. ORAN should be treated as means towards an end and not an end. Therefore, development of the high-performance based ORAN, like energy efficient radio systems, needs to be prioritized. There is a popular misperception that ORAN is not a commercially viable option, in fact the Japanese experience with the model proves otherwise. Focus needs to be on ORAN’s development through private public partnership.

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**Keynote Address by Naoshi Hirose, Vice-Minister for International Affairs, Ministry of Economy, Trade, and Industry of Japan**

**Key Takeaways:**

- The Vice-Minister noted that there is growing recognition of the strategic importance of the Indo-Pacific in global platforms. Japanese initiatives for a peaceful and prosperous Indo-Pacific have been in furtherance of this understanding. Japan has undertaken initiatives under Private Public Partnership (PPP) to ensure carbon neutrality. Under the Asian Energy Initiative, a project with an aim to reduce carbon generation and encourage renewable energy production has been initiated. Supply chain resilience plans have been adopted by India, Australia, and Japan.
Significant security initiatives and digital infrastructure projects were signed by Japan-France-U.S. There is also recognition of security risks on basic infrastructure grids. Social challenges posed by new tech platforms to the social fabric of the globe also need to be tackled.

There is an infrastructure challenge in Indo-Pacific countries, which needs to be overcome through financing of local initiatives and partners. This can also be an opportunity to build a better Indo-Pacific region together.

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**Clean Energy Financing: Supporting the Indo-Pacific’s Energy Transition**

**Panel:** Jake Levine (Chief Climate Officer, U.S. Development Finance Corporation), Eric Francia (President and Chief Executive Officer, AC Energy), Dinesh Kumar Khara (Chairman, State Bank of India), Wee Seng Lim (Group Head of Energy, Renewables & infrastructure, DBS Bank Ltd), Makoto Uchida (Managing Executive Officer, Global Head of Infrastructure and Environmental Finance, JBIC)

**Introduction:** With the energy transition from conventional fuel to the alternative sources gathering pace, the need for financial assistance for successful and seamless execution of the transition plans gets more prominence across the value chain. The forum deliberated on a roadmap for financing clean energy transition in the Asia-Pacific by exploring the existing financing scopes, areas for immediate investment, future plans, etc. It is needless to say that active participation of different stakeholders like the government, national/ multi-national organisation and private party is crucial for the region to be able to meet the financial needs of renewable energy projects that are also instrumental to counter climate change impacts.

**Key Takeaways:**

- A number of forums including the South Asia Regional Energy Partnership (SAREP), has been created to facilitate collaboration amongst the neighboring countries in the Indo-pacific to achieve ambitious RE targets and help exploring various financial instruments offered by the frontrunners and suitable for their contexts. Multiple investment announcements have been made in the recent past to address the financial requirement for clean energy transition in this region.
- Financial assistance will not only help countries in the Indo-Pacific to avail provisions for advanced technologies and infrastructure, but also make the process an inclusive one by considering the stake of the minor groups like women.
- The future of the Global Economy is being written in large part in the Indo Pacific. For this region to attract the required amount of investment capital for their zero-carbon projects and enhancing their access to climate financing and tools to build resilience, the collaboration across countries and continents is important. The United States has a profound stake in this region and is working passionately towards providing the required financial assistance and promoting competitiveness. The U.S. is mobilizing investment in RE, energy storage and grid infrastructure to supply reliable energy to millions of people residing in this region.
• While the conventional fiscal instruments like public equity, bonds remain to be the key funding sources for the envisaged clean energy transition, private equity and other innovative financial tools are also getting popular. The Clean Energy Financing model supports the Indo-Pacific’s energy transition through mentorship, implying there is ample scope for learning to use various financial tools in the most effective way.

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What are the Opportunities and Challenges in the Critical Minerals Supply Chain?

**Panel:** Matt Murray (Senior Bureau Official, Bureau of Economic and Business Affairs, U.S. Department of State), Stephen Biggins (Managing Director, Core Lithium), Tetsuro Fukunaga (Director-General, International Affairs, Ministry of Economy, Trade and Industry of Japan), Sam McLean (Senior Manager, Business Development and Policy, Tesla), Sam Riggall (Chief Executive Officer and Managing Director, Sunrise Energy Metals) and Tania Constable (Chief Executive Officer, Minerals Council of Australia)

**Introduction:** Critical minerals are key ingredients to many of the world’s most advanced manufacturers who will produce the technologies needed to achieve the 21st century goals of achieving net zero emissions, exploring space, quantum computing, and many more. Supply chains are complex, often highly concentrated, and relatively nascent. The Australian and United States governments are committed to working with industry to develop the required supply chains and overcome these challenges. The discussion focussed on practical steps to grow and diversify these key global supply chains, bringing together producers (extraction), consumers (semiconductor and automobile manufacturers), and government officials (as regulators and investors) to help identify barriers to market growth and investment across the supply chain.

**Key Takeaways:**

- Collective footprint for renewable energy, electric vehicles, and battery storage technologies will create unprecedented demand for energy resource minerals. Energy Resource Governance Initiative (ERGI) led effort designed to promote sound mining sector governance and resilient energy mineral supply chains. Through this initiative, The Department of State’s Bureau of Energy Resources (ENR) will engage countries to advance governance principles, share best practices, and encourage a level playing field. ERGI also looks at promoting resilient and secure energy resource mineral supply chains.

- Australia's powerful mining sector has backed the 2050 net-zero carbon targets. A more sustainable minerals sector is not only important for a resilient economic recovery, it is also helping to sustain and improve the lives of millions around the world. Australia is well positioned to source and develop the critical minerals the world needs for faster, smaller and more powerful technology. Australia has built its mining industry on a reputation for smart, sophisticated, sustainable exploration, mining and minerals processing from bulk commodities like iron ore,
coal and bauxite to metals like gold, copper and nickel and increasingly critical metals like lithium.

- Crucial role of stationary energy storage in enabling a rapid and effective transition to a decarbonised transport sector, the auto industry needs dependable supply chain investments to ensure availability of essentials such as lithium, cobalt, nickel and copper for developing battery-based systems. Metal markets are complex and fragmented, and Australia has significant share in critical metals deposits. We are on the verge of a technological revolution and we need an ecosystem that is future ready.

- Government as well as industry should look at the big picture of mineral resource mining, manufacturing, supply chain and consumption lifecycle to foster strategic stewardship alliances for eco-efficiency, maximise value, and minimise regulatory redundancy. The relevant stakeholders must lead and infuse initial investment to ensure robust ecosystem as well as committed stakeholder partnership. Government must also ensure swift approvals and ensure cost effective mineral processing.

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**Cybersecurity in the Cloud – Protecting the Region's Critical Infrastructure**

**Panel:** Annabel Lee (Head of Digital Policy, APAC, Amazon Web Services Public Policy), Paul Chua (Head Cybersecurity Officer, Greater Asia, Becton Dickinson Medical Devices), Richard Lomas (Senior Vice President, Global Government Affairs – Asia Pacific, Citi) and Jared Ragland (Senior Director, Policy – APAC, BSA | The Software Alliance)

**Introduction:** The theme of the panel discussion was to explore how government policymakers, regulators, and industry must work together to enhance cybersecurity in the region, especially for critical infrastructure sectors. Businesses and other organizations, including operators of Critical Infrastructure, are increasingly using the scalability, economies of scale, quality, and enhanced security features of cloud computing to meet their information technology needs and improve their operations. In the panel discussion, companies shared their perspectives on the importance of robust stakeholder consultations in the development of effective cybersecurity and critical infrastructure protection rules to ensure interoperability across sectors and international borders and to avoid costly inconsistencies or redundancies that undermine information security.

**Key Takeaways:**

- Cloud storage and cloud computing have become an important component of business processes in the COVID-19 induced world, as businesses are increasingly adopting tools and technologies that allow working from remote locations. However, this also requires creating and investing in infrastructure that is secured, especially in the context of maintaining data privacy, and cross border data flows. In this regard, regulations on data location are becoming a critical factor.

- Speakers discussed that regulations on data localisation and cross border data flows are adding complexities to designing cloud-based solutions. On one hand, the companies had to deal with
customers regarding the protection of their personal data; and on the other hand, the service providers also had to deal with national regulators and design products that could cater to both the requirements. In this regard, the speakers underlined the need for easing regulations on data localisation and cross border data flows which would then allow domestic companies to get access to cutting edge solutions that are available globally. Additionally, allowing cross border data flows would also promote innovation, leading to the development of improved products and services.

- The speakers underlined that mechanisms like inter-governmental agreements, inter-agency agreements, and joint statements by regulators of two or more countries are playing an important role in facilitating cross border data flows. Speakers also highlighted some recent examples like the agreement between the U.S. Treasury Department and the Monetary Authority of Singapore; and a similar agreement between the Monetary Authority of Singapore and Central Bank of Philippines and argued that such examples could be adopted for countries in the Indo-Pacific.

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**Closing Remarks by Jose W. Fernandez, Under Secretary for Economic Growth, Energy, and the Environment, U.S. Department of State**

**Key Takeaways:**

- The overall objective of the forum was to facilitate discussion among governments, businesses, and citizens in the Indo-Pacific on three key themes - economic recovery and resilience, climate action, and digital innovation. Urgent challenges to building resilient supply chains in response to the COVID-19 pandemic, financing clean energy transitions, and helping women access digital tools were widely discussed among stakeholders.

- India and U.S. are working together on many critical issues. India's role was emphasized in reshaping the supply chains in the Indo-Pacific and creating alternatives for investors and manufacturers. The growing economic convergence between U.S. and India brings clear benefits to the prosperity of people across a free and open Indo-Pacific.

- The discussions underlined the need for greater integration, and collaboration among countries in the Indo-Pacific to facilitate broad-based, sustainable, and inclusive economic development in the region. It was highlighted that the U.S., is committed to developing a free, open, and secured Indo-Pacific region is forging and strengthening similar partnerships with countries across the region.

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Established in 1983, CUTS International is a global public policy think-and action-tank, working on Trade, Regulation, and Governance. With its headquarters in Jaipur, India, CUTS has its offices in Lusaka (Zambia); Nairobi (Kenya); Accra (Ghana); Hanoi (Vietnam); Geneva (Switzerland); and Washington DC (USA).