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Confederation of Indian Industry
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The 13th India Israel Forum

22 NOVEMBER 2020

A Report

Executive Summary

The 13th annual meeting of the India-Israel Forum was held, virtually, on 22nd November 2020. The Forum was co-convened by the Ananta Aspen Centre, Confederation of Indian Industry and Tel Aviv University. This 13th edition of the Forum, representing both continuity and change, reflected on past efforts to strengthen the bilateral relationship; and owing to the current challenges in the global environment, deliberated on measures to be taken to secure a sustainable future and bolster the relationship. Key government officials, stakeholders, academics, and experts from India and Israel discussed contemporary challenges and brainstormed to find innovative methods to deepen the bilateral relations.

Since the Forum gathered last year, the global environment has undergone profound changes in the wake of the COVID-19 pandemic, continuing trade friction and the ensuing global and international uncertainty. These important shifts have impacted the interests of countries across the world, causing tremendous stress on public health systems and the global economic system. Against this backdrop, the Forum focused on "Bilateral Collaboration against COVID-19, AI & Health and Quantum Computing". As in the previous years, the Forum also constituted two Expert Groups. This year the focus was on Digital Health Care and Movement of Capital and Goods (Trade and Supply Chains) to tackle the challenges posed by COVID-19 and also explore areas of collaboration.

The core focus of the Expert Group on Digital Health Care was identifying key areas of cooperation to enhance healthcare delivery; and using data and communication technologies to address health problems. Experts from both the sides recognised Artificial Intelligence, Machine Learning and Deep Learning as vital areas for future collaborations between India and Israel. The meeting on Movement of Capital and Goods (Trade & Supply Chains) focussed on domestic policy reforms, maintenance of macroeconomic strengths, and adoption of technology to improve productivity and bolster growth. The agriculture and the manufacturing sectors were identified as crucial areas to develop an agenda for action to strengthen the relationship going forward.

The second edition of the India Israel Online Masterclass Series on Emerging Technologies began this September and has received tremendous feedback from its first two sessions. This series aims to promote academic linkages between India and Israel by enhancing technical skills and knowledge of Indian students. The two sessions, conducted by the faculty members of Tel Aviv University, have garnered positive responses from the students at various technical universities in India.

As the world finds its way to manoeuvres into the post-pandemic reality, the Forum moves towards the 14th edition with an aim of increasing and expanding the meaning and scope of the bilateral relationship.

The pandemic has shown that although traditional areas of cooperation are important, it is equally vital to be flexible during strenuous situations which demand immediate action. The traditional areas of cooperation – trade and investment, defence, and technology remain at the forefront as they provide stability and indispensable strength to the current bilateral ties. Newer areas of cooperation such as digital health, usage of renewable energies, increasing trade and investment are areas of mutual interest to both India and Israel. Both countries need to mobilize resources to augment mutual trust and cooperation.

Opening Session

Recent decades have seen unprecedented positive development and momentum in India's relations with West Asia. The outreach to West Asia is also in consonance with India's vision of a reformed multilateral framework and its quest to shape new global realities. The relationship between these regions has deepened over generations with constant exchanges of people, goods, ideas, and ideologies.

Trade volume between India and the Gulf stands at US$170 bn, earlier focussed on hydrocarbons but recently diversified into new areas. The cumulative foreign direct investment from the region is US$ 7 bn, with a surge in portfolio investments and sovereign wealth funds. Indian corporate sector also seeks to direct its investment in the region Another important aspect of India's relations with the Gulf region is food security. India imports 60 per cent of the fertilizers and related material from this region, and in response has positioned itself as a reliable source of food exports to the Gulf.

The region has also seen its fair share of conflict. Economic growth has eluded the region due to radicalism and extremism, and also due to the growth of non-state actors and failed states. The recent developments require some moderation in ideology to imbibe a sense of tolerance and pluralism to ensure conducive peace and development. Thus, the future of the region rests on the realisation of the aspirations of the people.

In this context, Israel's peace deal with Bahrain and UAE has wider strategic ramifications of the India-Israel relationship. The so-called Abraham Accords are unique as compared to Israel's peace agreement with other countries as Israel never had direct hostilities with either Bahrain or UAE. Moreover, there is the common vision shared by the three countries with respect to the sources of danger, instability, and of the idea of regional stability. Another added advantage of the peace deal is the deployment of strategic communication using social media platforms to increase the public footprint amongst each other. Moreover, India has defined Israel and UAE as its strategic partners, which indicates immense scope for a trilateral partnership.

In terms of India Israel bilateral relationship, the key areas for collaboration include water, energy, high technology, and innovation in the field of defence and combating cybercrime. In an era where technology defines change, bilateral projects have the potential to lead global markets. Israel being the start-up nation and India's start-up initiative can build a conducive environment to bring together investors, entrepreneurs, and innovators. Israel's pioneering technology in water conservation and desalination can be used to bring water to many of India's coastal regions. In terms of energy, contracts for gas exports from massive Israeli reserves in the Eastern Mediterranean; and exploring oil and gas reserves in India; or co-developing technologies in the renewable energy sector could be the way forward.

Report Back Session

a. Report Back on Semi-Conductor Working Group

An expert group meeting on the Semiconductor Working Group consisting of members from India and Israel was constituted by the Forum in 2018. As a follow up, a Core Group was formed to evaluate the feasibility of setting up a semiconductor fabrication facility in India. Ambassador Ron Malka and Ambassador Sanjeev Singla officially released the Report titled "Feasibility Study of a Semiconductor Fabrication Facility in India".

The Semiconductor Report has gained traction and has been received very well among different levels of the government, who unanimously agreed that there is a need for setting up of such a facility as this would also be in consonance with India's Atmanirbhar initiative to reduce imports of critical items from other countries.

Over the last few months, meetings have been convened with the Ministry of Commerce and Industry; the Ministry of Electronics & Information Technology; and Department for Promotion of Industry and Internal Trade, Government of India to discuss the feasibility of setting up such a plant in India.

A synthesis of the discussions signalled India to be a potential market to take part in the seeding process for a long-term partnership in the semiconductor industry. To reduce uncertainties prevailing within India and its need to fulfil the domestic demand, a collaboration between the chip design firms and Indian semiconductor companies with Israeli technology was addressed.

The need for more research to consult with multiple stakeholders to formulate a semiconductor fab scheme was highlighted by the core group. Great emphasis was also placed on local fabless companies benefitting from the global expansion of the industry to drive growth in IP and networking communications, medical, consumer, and automotive expanding into new horizons in the coming future.

b. Report Back on Digital Health Care

COVID-19 has exposed cracks in the Indian public health system as demand for quality and affordable healthcare continues to increase within India. The need to provide healthcare, which is accessible and affordable, now more than ever, becomes a necessity. The Indian healthcare scenario presents a spectrum of contrasting landscapes with inequality growing within the urban-rural setting regarding healthcare infrastructure. Addressing the multiplicity of challenges that hinges on expenditure and outlay on healthcare, which

is, at present, extremely low. In the present scenario, infrastructure funding should not only be expected by the government, industry should also step in and collaborate to allow convergence and build a cohesive and robust ecosystem.

The digital story can be enhanced due to the government's plan of digital healthcare stack and the National Digital Health Mission. The need for equipment as well as applications which can be used at the last mile connectivity will be a huge area of interest for the government and private players. Connecting the required equipment with both government and private players requires Indo-Israel Collaboration.

There is an urgent need to accelerate technology uptake of telemedicine and e-health. Delivering, prevention and support services via smartphone and online is now a reality and consumer behavior is showing acceptance and comfort in usage. There is tremendous opportunity in the Indo Israeli co-creation and collaboration space to develop tools and processes which can service not only India but the world with low cost interventions.

Currently, AI can help take the image interpretation to the level of human radiologists. As early detection of cancer might save lives, women are guided to having screening tests every 2 years or every year based on their health. The acceptable range of radiologists capturing cancer is at 3 out of 4. AI can provide a safety net and alert radiologists when they miss to detect cancer. Indo-Israel Collaborations in harnessing AI to detect breast cancer stems from leveraging AI to simultaneously work with radiologists in large hospitals. Thus, allowing AI to help alert missed cancer detections to save lives in women.

The Indian healthcare market will be US$ 372 bn by 2022, with the largest being the provider segment. Currently, the percentage of health insurance penetration in India is around only 20 per cent, resulting in the Indian healthcare market to be largely an out-of-pocket market. This lays the foundation of what digital can really do in India. India is experiencing exponential growth across internet users, online payments and data usage even before COVID. The Digital health market comprises online medicine delivery (e Pharmacy), home diagnostics (e Diagnostics), online appointment booking and online consultation (e Consultation).

Digital health is becoming a seamless one-stop integrated healthcare delivery system for consumers which solves accessibility, affordability and quality of health. Indian digital ecosystem is developing at a rapid rate, ensuring larger collection of health data. Partnerships and collaborations in Artificial Intelligence and Machine Learning in tele- medicine, chatbots, EMR, etc are being sought.

Currently there are 5 million patients which require ICU care, with only 90,000 ICU beds available. Within this spectrum less than 15 per cent of ICUs receive dedicated intensivists. With the advent of Tele-ICUs, there has been a 10 per cent reduction in hospital acquired infections. A 17 per cent reduction in the length of stay. A 27 per cent reduction in transfer cases. A 18 per cent reduction in vent days along with a 32 per cent reduction in ICU

mortality. The next step is to integrate AI into the Tele-ICU algorithms which will allow us to be more proactive in managing the ICU.

In Israel, there are four Health Maintenance Organizations (HMO), using digital data for the last 20-25 years. The data is very unique, as one can look at data points of a patient's entire lifespan using HMO. Investments in AI digital health companies are made once the company/ organization reaches an agreement for providing their services to another country. From a venture capital perspective, it is paramount to build a bridge to connect Israel and Indian institutions and healthcare providers to meet the needs of both the nations.

India faces constraints with regard to healthcare infrastructure and human resources, while facing a dual burden of diseases; communicable and non-communicable. The ecosystem is extremely fragmented, with high out of pocket expenditure and digital penetration limited in the Indian healthcare system.

From a digital health standpoint, there are few areas create a robust healthcare system

- Reorient the delivery model from a reactive to a proactive approach
- Financing of healthcare
- Technology can evolve creative ways to finance healthcare

While taking the decision to enter the Indian market, it is imperative to make sure it is a long- term relationship. Investments need to be done to make sure that the technology is well understood, and the implementation is done correctly. This is a resource intensive method but has proven to be very successful in the launch of multiple products. The goal is to have a product-market fit. This is what digital health technologies are having a hard time wrapping their heads around. When Israel develops technology, it is a one size fits all strategy allowing the embracement of technology to be very quick.

Therefore, mind harvesting of the people that work in technology is necessary to meet the demands of the market and identify functionality of a product in the local regime. Once the implementation is successful in a certain area, one can leverage it.

c. Report Back on Movement of Capital and Goods (Trade & Supply Chains)

A key requirement of the Indian economy is to boost investments so that the recovery that is expected in the coming quarters does not suffer from any resource constraint. India's investment rate still rules at around 29 per cent of its gross domestic product. While domestic savings should go some way in meeting the requirement of a higher investment rate, there is also a need for attracting external savings in the form of foreign direct investments. But a continued flow of foreign direct investment needs to be facilitated by the pursuit of domestic economic policy reforms, maintenance of sound macroeconomic policies & strengths and increased adoption of technology to improve productivity and attain higher growth. In all the three areas, India and Israel can mutually gain from increased cooperation between the two countries. Needless to add that the basic vision of stronger economic ties between India and

Israel will, therefore, be the pursuit of all the three goals – reforms, macroeconomic strength and the spread of technology.

A key focus area to achieve the goals of stronger bilateral cooperation will be the need to follow policies that simultaneously bring about domestic reforms to improve competitiveness of the Indian industry and trade, so that there is no need for any recourse to protectionist policies. The pressure to build tariff walls increases when domestic reforms and infrastructure prove to be inadequate, which in turn undermine the competitiveness of economic activities. Therefore, there is an urgent need for speeding up reforms and strengthening infrastructure to make Indian industry more competitive so that there is no pressure on raising tariffs. Recent instances of reforms in agriculture and labour laws are encouraging signs. Such an approach needs to spread to other areas, which will also facilitate India joining the regional trading blocs and take advantage of the global supply chains.

Areas of focus could include

1) Agriculture
2) Manufacturing
3) Investments
4) Technology transfer

Agriculture offers immense potential for strengthening cooperation between India and Israel. Such cooperation should begin with increased transfer of technology used for agriculture through a sustainable system, preferably with the help of an institutional framework. Technology transfer is as important as technology absorption. Given the nature of land holding in Indian agriculture (over 86 per cent of land holdings are of below two hectares), the suitability or appropriateness of technology to be transferred from Israel to India will play an important role. Such efforts will also have to be backed up with necessary steps to introduce structural innovation in Indian agriculture, improve productivity in farm activities and undertake crop diversification to make farming less taxing for the environment. There is also a need for a mechanism that can identify promising innovations in agriculture for India by innovators and then provide a pathway for the innovations to penetrate the market.

The manufacturing sector offers immense scope for cooperation between India and Israel. This will be facilitated if there is a renewed focus on digitisation, which can play a big role in enhancing productivity. Greater cooperation in the area of digitisation will help both the countries and their companies to move up the value chain. Emphasis has to be laid on more collaboration in intellectual property areas so that the potential for cooperation in technology sectors is fully exploited. An idea that should be examined closely is to consider creating industrial corridors in India, with the help of Israeli companies, which could help industries in that zone plug themselves into global supply chains.

The role of financing and flow of capital is no less important in raising the level of India-Israel cooperation to the next level. A suggestion in this regard is to create venture funds with the help of the two governments for providing capital to the start-up and digital ventures space and for attenuating the risks associated with investment in these funds.

An important consideration, while preparing the agenda for action on strengthening India-Israel cooperation would be to avoid being bogged down by worries over trade. The volume of trade should not be the only criterion for judging the quality and sustainability of the cooperation between the two countries. An equally reliable and optimum goal would be to improve bilateral ties through the transfer of technology and focus on improving productivity. Simultaneously, communication gaps need to be bridged between the two countries so that the available opportunities, particularly in the start-ups and technology spaces, could be fully exploited.

SESSION 2:

Collaboration Against COVID-19, AI & Health and Quantum Computing

Global response against COVID-19 calls for cooperation in various sectors such as healthcare, biotechnology, machine learning, and artificial intelligence. Greater engagement amongst industry, entrepreneurs, and service providers between the two countries will further boost bilateral ties in the domain of science and technology.

The integration of the healthcare industry with computing technology such as artificial intelligence and machine learning plays a crucial role in the response against COVID-19. As the need for rapid tests increases, the demand for accuracy and data analysis becomes extremely crucial in order to detect a pattern and predict any future outbreak of pandemic. Using digital disease surveillance becomes very crucial in contact tracing and preventing the dissemination of viruses. One of the crucial issues for policymakers would be striking a balance between identifying people who are vulnerable to contracting the disease and the privacy of the people.

Cooperation between Israel's cyber technology and India's pharmaceutical industry could yield significant results towards the fight against COVID19. Such cooperation, when implemented in a foundational manner, could generate substantial outcomes in both countries and also amplify trade and investment opportunities between both the countries.

The establishment and creation of an AI ecosystem in India could not only generate employment opportunities but also encourage India and Israel to collaborate and create conducive policies. This becomes an important step as artificial intelligence helps in data computing and analysis, which is an integral part towards tracking down the patients, curing them and also containing the virus.

Another area of convergence could be between the small and medium stakeholders in India and Israel to check and report on the ground level progress and aid in the implementation of policies made by New Delhi and Tel Aviv. Engaging private companies to further bolster ties and collaborate in disciplines such as quantum computing, artificial intelligence, 5G technology, and machine learning could prove beneficial to all the major stakeholders and create a sense of curiosity in students who aspire to learn about various computing technologies.

Involving multiple major stakeholders to facilitate a conference on digital health could result in the development and emergence of new and innovative ideas, which could further push various research agencies to create pilot projects and infuse a greater sense of trust in the emerging startup scenario in India.

Academic cooperation between the two countries should be greater than ever as increased demand for academic knowledge on the virus has become

a key factor in tackling the pandemic. Collaboration between the Indian Institute of Technology, Madras, and Tel Aviv University on Quantum computing could be a key area of cooperation as the future of computing technology could fasten the speed at which data and information are processed.

India's New Education Policy (NEP) has carved a new and greater space for research development in STEM and other disciplines. Against that backdrop, collaboration with Israeli universities in research development will improve the scope and structure of science and development in India. Improving the scope of doctoral studies could also motivate and inspire the youth of India to innovate and contribute to the global academic literature.

Concluding Session

The India Israel bilateral relationship has flourished in the twenty-first century and is showing promising signs of growth and development across both countries. Trade relations, for instance, could be bolstered by facilitating easier exchange of goods and services, resulting in greater people–to–people connections due to the visa-free travel arrangements made by Israel.

Greater investment opportunities have opened up in both countries due to COVID-19, which could enable the creation of venture funds in key sectors with minimal risk and optimal outcome. The National Academic Fund, financed by a joint research grouping of Indian and Israeli academicians, has allocated funds for research in India and Israel.

The promising nature of this bilateral relationship allows for greater inclusion of newer areas of cooperation such as the investment in semiconductor technology and exploring the scope and importance of digital health in an increasingly interconnected and globalized world. The globalized and digitalized world invokes the need for semiconductors, a crucial element in any digital device; and therefore, the inclusion of dialogues and trade based on semiconductors within this bilateral relationship has the potential of carving a new path ahead for the two Asian software giants.

The global pandemic has provided an opportunity to restructure and reshape the public health infrastructure by inculcating digital technologies in the healthcare industry. Indian pharmaceuticals and healthcare industries are leading the way towards the development and dissemination of vaccines. Similarly, Israeli healthcare has been investing in AI-based imaging solutions which hold the power to transform radiology.

List of Participants

Special Invitees

1. **Alon Ushpiz**
   Director General, Ministry of Foreign Affairs

2. **Sanjay Bhattacharya**
   Secretary (CPV & OIA), Ministry of External Affairs, Government of India

3. **K Vijay Raghavan**
   Principal Scientific Adviser, Government of India

Israeli Delegation

1. **Stanley Bergman**
   Co-Chair, India Israel Forum, CEO and Chairman, Henry Schein

2. **Aharon Fogel**
   Co-Chair, India Israel Forum and Chairman, Ayalon Insurance

3. **Adiv Baruch**
   Chairman, Israel Export Institute

4. **Isaac Ben Israel**
   Chairman, Israeli Space Agency and the National Council for Research and Development, Ministry of Science, Technology and Space of Israel

5. **Leonardo Leiderman**
   Tel Aviv University and Bank Hapoalim (Co-Chair, Expert Group on Movement of Capital and Goods (Trade & Supply Chains))

6. **Israel Makov**
   Chairman, Biolight and Chairman, Sun Pharma (Co-Chair, Expert Group on Digital Health)

7. **Ron Malka**
   Ambassador of Israel to India

8. **Noam Shomron**
   CSO and Founder, VariantYX and Head, Functional Genomics Laboratory at Tel Aviv University, Sackler School of Medicine

9. **Ariel Porat**
   President, Tel Aviv University

10. **Milette Shamir**
    Vice President- International, Tel Aviv University

11. **Ophir Shoham**
    Managing Partner, Axon Ventures

12. **Giora Yaron**
    Chairman, Itamar Medical

India Delegation

1. **Jamshyd N Godrej**
   Co-Chair, India Israel Forum,
   Chairman, Ananta Centre and
   Chairman of the Board, Godrej and Boyce Manufacturing Company Limited

2. **Nikhil Sawhney**
   Co-Chair, India Israel Forum,
   Managing Director, Triveni Turbine Limited and Director, Triveni Engineering and Industries Limited

3. **Chandrajit Banerjee**
   Director General,
   Confederation of Indian Industry (CII)

4. **Ashok K Bhattacharya**
   Editorial Director, Business Standard
   (Co-Chair, Expert Group on Movement of Capital & Goods (Trade & Supply Chains))

5. **Pramit Pal Chaudhuri**
   Foreign Editor, Hindustan Times and
   Distinguished Fellow & Head, Strategic Affairs, Ananta Aspen Centre

6. **Subhasis Chaudhuri**
   Director, Indian Institute of Technology, Bombay

7. **KRS Jamwal**
   Executive Director, Tata Industries

8. **Rajan Navani**
   Vice Chairman & Managing Director,
   Jetline Group of Companies, India

9. **Kiran Pasricha**
   Chief Executive Officer, Ananta Aspen Centre and Ananta Centre

10. **Raghavendra Singh**
    Senior EVP and Group Head - Public Affairs & Government Business, Kotak Mahindra

11. **Ravi Singh**
    Secretary General and CEO,
    World Wildlife Fund – India

12. **Shubnum Singh**
    CII Advisor Healthcare Council
    (Co-Chair, Expert Group on Digital Health)

13. **Salil Singhal**
    Chairman Emeritus, PI Industries Ltd

14. **Sanjeev Singla**
    Ambassador of India to Israel

Photos of Participants


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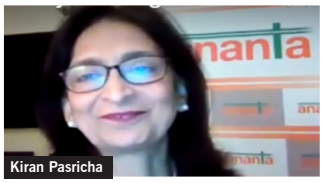

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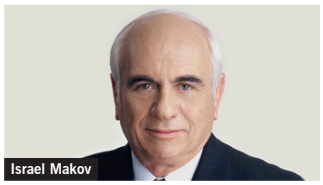
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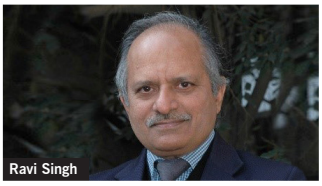
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