

PATHWAYS FORANEW MINILATERAL

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Editors' Note

t is a widely shared notion that the post-Second World War multilateral order that had shaped global diplomacy over the last few decades is today in a state of flux, and the momentum and heft of both economic growth and state power is slowly shifting to the East. This is reflected in growing efforts to effect changes in the multilateral order and make it more inclusive of the interests of the developing world. The drive for change has been fast-tracked in recent years, with the emergence of new economic, diplomatic, and geopolitical institutions preparing to address what many today foresee as turbulent times in the years ahead. Amidst this expected turbulence, countries such as India continue to face domestic challenges including reinvigorating their economies post-pandemic; India aims to maintain a GDP growth rate of over 7-8 percent, recognising only too well that achieving such a goal will require a reconfiguration of both geopolitics and geoeconomics.

Emerging from the current uncertainties are minilateral platforms, among them the grouping of India, Israel, the UAE, and the US or the I2U2. Its birth in October 2021 was immediately

surrounded by speculation amongst diplomats and scholars: Would it be another China-focused entity, like the Quad in the Indo-Pacific that groups the US and India with Australia and Japan? Or would it promote US and Israeli interests against Iran? Would it be a new US-led alliance in West Asia with India as the chosen handmaiden? Or would it have some other, perhaps more sinister objectives? It took nearly nine months before some of these concerns were put to rest, as the first I2U2 summit in July 2022 made it clear that the grouping would be leveraging technology, innovation, and private capital to address pressing global challenges. Its focus would be on geoeconomics rather than geopolitics.

Even as the contours of this platform gradually appear, there is some haze that remains about not only the relevance of I2U2 to each of its members, but also what the grouping itself can mean for West Asia and beyond. This volume is an attempt to shed light on both aspects through a carefully curated selection of 12 short essays. As we identified authors, distinguished in their fields, we tried to bring together an insightful mix of

official perspectives, and those of others who can offer a bird's eye view from their own vantage points. Given how I2U2 is explicit about the lead role of the private sector in its projects, we also include the standpoint of three private companies and a Dubai-based business association that have been actively engaged with the grouping during this formative period.

To be sure, I2U2 in its current form is a near-empty canvas to ideate on. This report, I2U2: Pathways for a New Minilateral intends to offer suggestions from diplomats, academics. entrepreneurs, and industry leaders alike representing the four member countries. They outline their thoughts around six pillars identified by the I2U2 states: water, energy, transport, space, health, and food security. The essays in this report loosely or directly revolve around these topics and offer recommendations for pathways of cooperation between the governments and private sectors of the four countries.

The volume opens with an overarching view of the fundamentals that are in play, and that need to be strengthened, for the grouping to gain successful outcomes. Following this scene-setter,

Dammu Ravi, Secretary (Economic Relations), Ministry of External Affairs and India's Sherpa for the I2U2, offers his insights into the first two I2U2 projects, both located in India. In other sections of the report, UAE's Sherpa and Minister of State for Trade and Economic Affairs in the foreign office, Ahmed bin Ali al Sayegh, highlights his vision on how to take the I2U2 forward and Ron Malka, former Director General of the Ministry of Economy of Israel and a former Israeli Ambassador to India highlights the Israeli enthusiasm for the group, specifically in technology and agriculture. Aparna Pande, Fellow and Director of the Initiative on the Future of India and South Asia at the Washington D.C.-based Hudson Institute, provides a view of the minilateral from the United States.

While the above essays anchor this report geographically, other authors address the various other questions surrounding the formulation of I2U2, often with a healthy dose of both optimism and scepticism. *Ebtesam Al Ketbi*, President and Founder of the Emirates Policy Centre, summarises how Abu Dhabi looks to leverage both economic and political capacities of the members for cooperative benefits. *Paul Kapur*, Professor at the US Naval

Postgraduate School and Ankita Dutta, ORF Fellow, co-author an essay that tackles an arguably difficult topic—that of potential I2U2 cooperation on security. Suresh Kumar, Chairperson of Indian Business and Professional Council in Dubai, offers insights on how private industry can best create an 'I2U2 Inc'. Eran Meller, Co-founder and Chairperson of Ecoppia, brings energy security and sustainability to the table as potential key areas of cooperation.

For his part, *Rizwan Soomar*, CEO and MD for India Sub-continent and Sub-Saharan Africa at DP World, makes a watertight argument for multilateral cooperation on food security and its associated logistics. *Sanjiv Puri*, Vice President of CII and Chairperson and MD of ITC Limited, adds an Indian perspective to the debate on

food security as global commodities experience turbulence. Nickolay Mladenov, Director General at the Anwar Gargash Diplomatic Academy, paints a larger geopolitical picture within which the creation of I2U2 is taking place. Lastly, Shravishtha Ajaykumar, Associate Fellow at ORF, dwells on one of the most important pillars of cooperation—i.e., technology, includes which innovations like semiconductors and blockchain.

This volume aims to promote debate among the political classes, policymakers, academics, and business communities of the four participating countries. The hope is that the views, opinions and wisdom of the contributors lead to a successful long-term implementation of this unique and ambitious initiative.

Navdeep Suri and Kabir Taneja

Editors

I2U2 and the Case for Minilaterals

Navdeep Suri

n element of dramatic flair accompanied the birth of a new minilateral group on 19 October 2021. India's Minister of External Affairs S. Jaishankar stood beside Israel's Alternate Prime Minister Yair Lapid in Tel Aviv as it was announced, while the United Arab Emirates (UAE) Foreign Minister Sheikh Abdullah bin Zaved in Abu Dhabi and United States (US) Secretary of State Anthony Blinken in Washington DC joined them virtually. Secretary Blinken captured the moment as he said, "I can say very simply that with Israel, the UAE and India, we have three of our most strategic partners. And given so many overlapping interests – energy, climate, trade, regional security - this seems like a really interesting and good idea to try and use this new format, and very complementary capabilities in very many areas, to see many more things get done." Jaishankar subsequently described India's ties with the three other countries as "among the closest relationships we have, if not the closest."1

Sceptics, which included diplomats and scholars, questioned whether this unconventional grouping would ever take wing. But nine months later, President Biden's visit to Tel Aviv on 14 July 2022 became the occasion for the first hybrid summit of the leaders of the four countries, as the grouping was formally named I2U2 (India, Israel, UAE and US). The joint statement issued after the summit declared its intention to mobilise private investment and technology to address six areas of global importance—water, energy, transportation, space, healthcare, and food security.

I2U2 is only one example of the emergence of minilateral or plurilateral groupings as a potentially significant factor in international relations. Such platforms enable middle powers which have a strong interest in maintaining their strategic autonomy to come together for a set of shared objectives. The countries comprising such groups need not be geographically contiguous, nor are they burdened by legally binding obligations and cumbersome secretariats, or by the fact that they may have divergent interests beyond the areas they are cooperating in. The Quadrilateral Security Dialogue or Quad, for instance, which brings together the US, India, Japan and

Australia, may be focused on pushing back against China. I2U2, for its part, which also has the US and India as members, can try to steer clear of issues around the rise of China, since both the UAE and Israel have close ties with that country.

In a geopolitical arena that is again being defined by explicit competition between the US and China, I2U2 allows the UAE and Israel the autonomy to choose the US for a security arrangement and China for a tradeand-investment-driven relationship. The Biden administration also appears to recognise the benefits and the flexibility of this approach, and has supported a 'partner-led, US-enabled' strategy. This is outlined in the National Security Strategy report released by the White House in October 2022.²

Multi-alignment, thus, seems to be the new mantra. The Mangrove Alliance for Climate led by Indonesia and the UAE that was launched at the Conference of Parties (CoP) 27 in Sharm el Sheikh, and was later joined by Australia, Japan, Sri Lanka, India and Spain, is another example of a geographically dispersed group that has come together for a common cause. So too, is the emerging Chip 4 alliance of the

US, Japan, South Korea and Taiwan to enhance the security and resilience of the semiconductor industry. This suggests that the minilateral form of diplomacy may be here to stay.

For the UAE, investments in Indian agriculture promote its food security, even as it seeks to bring West Asia and South Asia into a strategic continuum. For India, it provides access to both technology and capital in six critical sectors and also enhances its geopolitical standing. For Israel, it provides a broader endorsement of the Abraham Accords and of Israeli technology in areas such as water, energy and food security. For the US, it brings together three partners into a group that might implicitly provide an alternative to Chinese forays into the region, even as it nudges US companies towards 'friend-shoring'encouraging investments in friendly countries.

As I2U2 enters its second year, several issues come to the fore. In its first year, the member countries were at pains to emphasise the geoeconomic dimension of the group. This was reflected in the backgrounds of the senior officials or 'sherpas' who were selected to steer the group.

The designated sherpa from India is Dammu Ravi, Secretary (Economic Relations) in the Ministry of External Affairs, while his deputy, or sous sherpa, Noor Rahman Sheikh, is the Joint Secretary heading the Economic Division at the same ministry. This is also true of the sherpas from the other countries-Jose W. Fernandez of the US is Under Secretary for Economic Growth, Energy, and the Environment in the US State Department; Ahmed Al Sayegh from the UAE is Minister of State for Economic and Trade Affairs in its Ministry of Foreign Affairs and International Cooperation; and Ambassador Alon Ushpiz of Israel is Director General at its Ministry of Foreign Affairs. However, it may only be a matter of time before conversations on geoeconomics start to drift towards geopolitics to develop a more expansive agenda.

Second, the process has been driven so far by the sherpas. But it will probably need to institute a system of regular meetings between the foreign ministers of the four countries and possibly an annual summit of the leaders to ensure that the decisions announced get implemented within a reasonable timeframe.

Third, the possibility of expanding the group has been mooted by the UAE, though the other members have been more guarded in their reactions to the idea, preferring to allow the existing format to stabilise before looking at expansion. Countries such as South Korea and Singapore have been mentioned as possible candidates. Meanwhile, other minilaterals that bring India, the UAE and France, or India, France and Australia together also appear to be on the horizon.

Fourth, the fact that the US and India are also the two largest members in the Indo-Pacific Quad may lead to a degree of osmosis in terms of the methods and practices of the two groups. The Quad now has working groups on vaccines, climate action and critical technologies. It has also set up Task Forces and expert groups to focus on specific areas-among others, an infrastructure coordination group, a green shipping network, a clean hydrogen partnership, a 5G diversification and deployment group, a semiconductor supply chain initiative, a biotechnology scanning and genome sequencing group, and a cyber group on standards, talent and trustworthy digital infrastructure. It will be interesting to see if some of these topics, perhaps shorn of the China focus they have in the Quad, also percolate into forthcoming meetings of I2U2, despite the obvious differences in the priorities and interests of the two minilaterals.

I2U2 has made a good beginning by holding foreign minister- and summitlevel meetings in its first year, and by setting up an effective sherpa-led mechanism. By focusing on a set of key global issues, it has stayed clear of charges that it would be an 'anti-Iran' or 'anti-China' platform. As host country for the food security and clean energy projects, India bears the burden of responsibility to show early and tangible progress. India's presidency of the G20 may reduce the bandwidth available to it for I2U2, but it is all the more important that the sherpas keep the process on track.

Endnotes

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I2U2: An Overview

Dammu Ravi

I2U2 is a strategic group formed primarily to facilitate economic cooperation among its four member countries. It was launched at a meeting of the foreign ministers of these countries in Tel Aviv in October 2021. Foreign Ministers felt that the acronym 12U2 was appropriate for defining a small group of countries that are coming together to engage in collaborative economic projects, and also to distinguish it from the Quad which is currently active in the Indo-Pacific. I2U2 seeks strategic convergence in economic matters amongst the four countries mostly for economic projects; they aim to synergise each other's capital, technology, entrepreneurship, and skills.

Senior diplomats of the four countries, called the 'sherpas' of I2U2, have met several times, mostly virtually, to set a broad agenda and define terms and conditions for taking initiatives. They have agreed that projects conceived under I2U2 will be entirely driven by private industry, with the role of government limited to providing assistance and facilitating implementation. Industry working groups have formed with been

designated officials guiding them. The sherpas have identified six sectors for cooperation—i.e., water, energy, transportation, space, health, and food security. Two projects are initially being set up in India: a food corridor; and a hybrid wind-and-solar project which includes battery storage.

Food Corridor Project

The food corridor project is expected to develop a series of integrated food parks across India powered by renewable energy. It will use climatesmart technologies to reduce food waste and spoilage and conserve water. Private companies in the US and Israel have shown interest in lending expertise and offering innovative solutions for overall sustainability. India will provide land, operational support, and associated infrastructure.

The aim is to access food markets in the UAE, Israel and other West Asian countries, providing food grain security to a region where rainfall is sparse. The US could be another possible market, securing it an assured supply of food grains with a stable pricing mechanism. In the initial phase, the

UAE has expressed interest in sourcing bananas, potatoes, onions, rice and spices from the food parks.

The Abu Dhabi Developmental Holding Company (ADQ), a sovereign wealth fund of the UAE, has shown interest in co-investing in the food parks. It has tied up with a consortium of importers from the UAE to set up warehousing facilities. An I2U2 meeting on 14 October 2022, also attended by Mohamed Alsuwaidi, CEO of ADQ, agreed to form a joint working group/committee with stakeholders from the concerned central ministries/departments and the state governments of Gujarat and Madhya Pradesh to review the project regularly, looking at procurement, processing, logistics, and exports. Specific details of product volumes, quality attributes, cluster locations, value chain development, investments, financial viability, potential income for farmers, and government support are being worked out between ADQ and the Gujarat and Madhya Pradesh governments.

The model being adopted, of 'crop value chain clusters', will shape holistic development of sustainable and competitive agri-value chains in India through a three-way partnership led by

state governments, facilitated by the central government, and anchored by the private sector. Farmer-producer organisations (FPOs) will take care of on-ground deployment of personnel.

The food corridor will create a mutually beneficial situation, providing food security to West Asian countries, while Indian farmers benefit from obtaining assured markets. It will enhance farmers' incomes and support job creation, besides contributing to global food security.

However, as this is the first project of its kind under an international cooperation initiative, it could well face hurdles too, including tariffs and non-tariff barriers, differing standards and regulations, and export taxes. Land allotment for the project could also encounter difficulties, as land is often an emotional issue for local populations. A land policy that will be seen as fair and constant is critical for the success and sustainability of the food corridor.

Wind-Solar Hybrid Project with Battery Storage

The US Trade and Development Agency (USTDA) funded the feasibility

study to set up a 300-MW wind-solar hybrid project which would include battery storage, in Dwarka (Gujarat). Shivman Wind Pvt. Ltd, a Jamnagar-based company, and the Chicago-headquartered Evergreen Power Solution Inc. will collaborate.¹

The project will have wind capacity of 200 MW and solar of 100 MW, along with storage of 100 MW. Total cost is estimated at US\$330 million; 75 percent of the financing is expected from development finance institutions and banks, and the rest from private investors. Shivman has begun acquiring land for the project.

The success of the project hinges on the efficacy of the battery storage technology. The aim is to bring down battery storage cost significantly to about INR 5-7 (US\$ 0.16) per unit against the present cost of INR 8-9. At this price, the power will be highly attractive and could spur manufacturing and industrial activity. It will amount to huge savings on energy for the state government, which can then be utilised for other socio-economic development projects. If successful, the model can be replicated elsewhere, including in other developing countries as they transition to a lower-carbon future

in keeping with their climate change objectives.

As with the food corridor project, there will be obstacles. Supply chains related to renewables, especially solar energy and battery storage, are currently dominated by a single country-i.e., China. Other countries are dependent on it. Rare-earth mineral resources, essential for wind turbine manufacturing and other activities, are also owned by a few countries, with China once again controlling more than 50 percent of them. Even so, if I2U2 countries remain united and show enough determination in driving these collaborative ventures, it should be possible to successfully execute such projects elsewhere.

Leaders' Commitment

Commitment is critical to the success of these projects. At the I2U2 Virtual Summit on 14 July 2022, which was attended by the heads of all four countries, all of them reiterated their commitment to I2U2, noting that it was a good model for cooperation in an increasingly uncertain world.² Prime Minister Modi presented new ideas for cooperation in the areas of 5G telecommunications, defence,

start-ups, fintech and innovation. He made a strong pitch for encouraging collaborative ventures in interoperability of the Unified Payments Interface (UPI) platform (which India has developed) with the other I2U2 countries. At their meeting on 20 September 2022 in New York on the sidelines of UN General Assembly, the sherpas took stock of the progress of the two joint projects and resolved to deepen cooperation.

The 12U2 aims grouping, which to enhance the vibrancy and entrepreneurial spirit of the four countries, is indeed novel in so far as it will collectively tackle some of the greatest challenges confronting the world. West Asia and South Asia badly

need cooperation and stability. The Abraham Accords signed in 2020, by which the UAE and Bahrain agreed to recognise the sovereignty of Israel, and other peace and normalisation agreements in the region, will improve mutual understanding and provide space for more such collaborative projects.3 The private sector of all four countries will play a significant role in modernising infrastructure, developing low-carbon pathways for industries, improving public health, and promoting emerging and green technologies. India has a vital stake in the peace and stability of West Asia which is home to a large Indian Diaspora and with which its economic linkages are enduring.

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I2U2 from the Israeli Perspective

Ron Malka

he I2U2 brings together the most advanced countries in West Asia, the global superpower, and India, an emerging superpower. The US is a global superpower economically, militarily and technologically; UAE and Israel are two of the leading countries in West Asia-the UAE as an innovative economic power and Israel as a technological and scientific power; and India, as an emerging superpower in South Asia, is forward-looking emphasises innovation, with and vast markets and competent human resources, making it an attractive destination for investments as well as an important developing market for manufacturing and commercial companies. It is likely that India will become the world's third largest economy within a few years. I2U2, which creates a "corridor of advanced technology," will accelerate this process, not only to India's benefit but also that of the entire world.1

Together, the four countries are home to a relatively young, skilled and creative workforce with a spirit of innovation and entrepreneurship, making them natural partners in the establishment of a global forum. In January 2022, the ministries of economy of the UAE and Israel collaborated in preparation for the 'Metaverse Age', reflecting the forward-thinking nature of both countries.

The countries that constitute I2U2 vary in their capital components, including human capital, physical capital, financial knowledge, and financial capital. Their collaboration seeks to create a synergy of various capital components through judicious leveraging of the relative advantages of each country to create a regional economic impact that will improve quality of life as well as dissolve inter-state tensions. From Israel's perspective, I2U2 provides a new platform for collaboration with and extending beyond other countries in West Asia by integrating the entrepreneurial, financial, technological and productive capabilities of each of the four countries.

The projects promoted by the forum will serve as a model for advancing quadrilateral collaboration, creating commercial economic opportunities and high-quality job opportunities as well as providing a channel for the exchange of knowledge and expertise.

The size of trade between Israel and the UAE increased by 120 percent within a year, to US\$2 billion, not including software services. Thus, it is not farfetched to assume that the scope of trade between India, the UAE and Israel could reach US\$100 billion before the end of the decade.² Moreover, the participation of the private sector in this collaboration, whether as part of the forum's projects or independently, will drive growth in member countries and in trade among them.

Israel is an ally of the US and a strategic partner of India, and the Abraham Accords have changed regional realities for the country. From the economic perspective, Israel is party to a longstanding trade agreement with the US, recently signed a trade agreement with the UAE which is unprecedented in scope, and is undertaking negotiations to establish a trade agreement with India. The depth and resilience of these relations, even amidst geopolitical tensions and internal political and government changes, ensure that this is a strong and stable quadrilateral platform capable of advancing local and regional long-term infrastructure projects.

The forum countries have identified six key areas for initial collaboration: food security, water, energy, transportation, outer space, and health. These areas were not chosen arbitrarily, and rather, they convey the notion that the primary challenges of the 21st century are global and call for extensive collaboration. As the COVID-19 pandemic demonstrated, individual countries cannot limit themselves within their national boundaries and ignore regional and global crises in areas such as energy, food, water and health. Crises in these areas in one country are bound to have repercussions in others: carbon emissions in one country bring about weather changes in neighboring countries; viruses do not stop at state boundary lines; a war between Russia and Ukraine influences food stocks and prices as well as supply chains in countries far from battle zones. Only by reaching out beyond national borders would it be possible to advance in the resolution of these crises for the benefit of humankind as a whole.

As part of the new platform, the leaders of I2U2 are promoting two initial joint projects:

 A US\$330-million renewable energy project in the state of Gujarat. The project combines developing an electric power network based on solar and wind energy with an energy storage system. It relies on finance, equipment, knowhow, and infrastructural capital allocation of the four countries.

2. India-UAE Food Corridor: Α US\$2-billion project aiming establish food and agricultural centres in India, combining the capabilities and technologies of the private sectors of all partners. As part of the project, a series of food manufacturing parks will be established across India in a manner that will combine advanced technologies aiming to ensure efficient and frugal water use, clean water conservation, and the use of renewable energy sources. India will allocate suitable land for the project, the UAE will invest financially, and Israeli and American companies will be invited to contribute innovative solutions intended to ensure long-term success.

These projects optimally combine the significant challenges faced by the forum countries with their comparative advantages. Leveraging these

comparative advantages effectively will generate the synergy to which we aspire. These projects show promise of becoming success stories—the energy project will combine technologies that the forum member countries are world leaders in, such as the International Solar Alliance (ISA), initiated by India.3 Meanwhile, the agricultural food project is based on a proven practice, as reflected in the centres of excellence established as part of the globally successful India-Israel agricultural project. Such success stories would inspire additional projects and attract other countries to collaborate with the forum and become future members.

These projects can also serve as growth engines for each of the four countries. Both projects include commercial companies with relevant know-how and technologies, and lists of suitable local companies that can participate in these projects have also been shared amongst officials from all the four countries. Direct acquaintance between the companies can lead to collaboration beyond these projects.

The forum's activity could develop in two significant directions. The first is expanding areas of collaboration. When contemplating the future, it is

desirable that the countries collaborate understanding which emerging technologies will shape the future and in their development and implementation. There is already a global understanding that Metaverse. Artificial the Intelligence-enabled technologies. and quantum computing will become increasingly prominent and comprise the technologies shaping our future. The forum members possess knowledge and experience that can serve as a springboard for the development as well as efficient and intelligent implementation of these technologies in the six priority areas that have been identified. These and other technologies could help propel the world economy in the future, as the four countries have a common interest in developing human capital, knowledge and advanced technological solutions that would position them at the forefront of global activity in these fields. There is ongoing bilateral collaboration in these areas between Israel and each of the partners in the forum, including designated research funds for these issues as well as concerns such as cybersecurity, semiconductors, drones and advanced machinery.

The second is expanding regions of activity and influence. The combined

capabilities of the forum countries create a unique synergy with significant economic and geopolitical power. Joining forces will allow the countries to create change not only in their territory, but also in their surroundings, notably South America, other Middle Eastern countries, and India's neighbours in Asia. Problems in healthcare, food insecurity, and climate change cause greater damage in weaker countries, and they need support from neighbours with more resources to improve conditions and create a safer and more appropriate regional environment. Indeed, the collaboration does not have to stop with the neighbours; the forum has also added value and the ability to create a significant impact in areas such as Africa which are in need of assistance and advanced technological solutions.

The forum can also be expanded by increasing the number of member countries. However, it is important to ensure that countries joining the forum share similar values and have complementary capabilities, alongside the ability to collaborate. The forum should continue to exist in a format that will be effective and would enable the smooth and convenient integration of the private sector. It may be worth

postponing such a step to a later stage to enable the forum to first establish itself in its current configuration.

From the Israeli perspective, I2U2 constitutes a continuation of the Abraham Accords, acting as a meeting place that enables support for regional strategic initiatives with emphasis on infrastructure, technologies and connectivity. The ability of forum member countries to establish a collaboration mechanism and hold regular working groups advances the Israeli vision for a tangible reality on the ground that would soon bear fruit for the region. Declaring projects in additional fields and expanding activity to additional regions will deepen the commitment of countries to the forum and ensure future growth. The forum can also pave the way for more countries in the region to realise the potential of making peace with Israel.

The geoeconomic collaborations of I2U2 member countries, especially the resultant advanced technological corridor, convey the advantages of the countries and create synergy. The joint projects will lead to developing the physical, infrastructural capital and human capital of the forum members, which will constitute significant growth engines. The impact will be reflected in the growing welfare of citizens of forum member countries, as well as their neighbouring and remote countries. The hope is that this impact will encourage the dissolution of local and regional tensions and bring our hearts and minds closer. It may also eventually lead to extensive geopolitical changes in the Middle East and Asia, and result in the inclusion of additional countries in the partnership circle.

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The Trans-Regional Benefits of I2U2 for the United States

Aparna Pande

he West Asia Quad, also known as I2U2, was formed in October 2021 and has demonstrated tremendous geopolitical and geoeconomic promise. Formed as a ministerial-level dialogue, the minilateral held its first leaders' level summit within nine months of establishment. (The Indo-Pacific Quad, for instance, took more than a decade to take its current shape.)

From Washington's perspective, I2U2 is a beneficial initiative, with strategic value in integrating West Asia and South Asia. Since the end of the Second World War, the US has considered the larger West Asia to be critical to American grand strategy, primarily for access to energy resources. The US has also worked hard to try and resolve the Arab–Israel dispute over Palestine.

Over the last decade, successive US administrations have tried to diminish overt US presence in West Asia. The consequent vacuum created by American retrenchment has resulted in the entry of local and regional actors whose aims are antithetical to American interests. Russia's return to the region and its role in the Syrian conflict, as

well as its close relations with Iran, are well known. China too, has deepened its economic and strategic relationship with key countries, i.e., Saudi Arabia, the UAE, and Israel.

A grouping like I2U2 helps the US remain significantly engaged in West Asia without committing too much resources. It could further help contain expanding Chinese and Russian influence in this region and reassure America's West Asian allies of its security commitments. Above all, it encourages closer bonds between three middle powers friendly to the US.

Moving from a 'US-led, partnerenabled' strategy to a 'partnerled, US-enabled' strategy requires building what the 2022 National Security Strategy (NSS) report calls "a latticework of strong, resilient, and mutually reinforcing relationships that prove democracies can deliver for their people and the world."1 If speeches, symbolism, summits, and deliverables are the criteria for measuring success, then the I2U2 grouping ranks high on the list of recent US foreign policy successes.

The US prefers a West Asia that is closely integrated with itself or with a regional American partner, such as India, over one that is closer to Russia or China. This is evident in the 2022 NSS, which emphasises that the way to "out-compete China and constrain Russia" is through reinvigorating America's "network of alliances and partnerships."

The Biden administration has made it a priority to provide a counter-example to China through investment, innovation, and technology. The US knows it must outcompete China by supporting global public goods, such as working towards food security, investing in renewable energy, and dealing with the impacts of climate change. The I2U2 grouping is ideally situated to lead by example in these areas.

The grouping brings together shared interests and complementary capabilities. The UAE signed free trade agreements with both Israel and India in May 2022.³ The UAE is one of India's top trading partners; bilateral trade between the two countries was US\$88 billion in 2022.

The joint statement released at the July 2022 virtual summit between

President Joe Biden, Prime Minister Yair Lapid, Prime Minister Narendra Modi, and President Sheikh Mohamed bin Zayed Al Nahyan highlighted the key deliverables being sought by each country from the grouping.4 Israel wants reaffirmation of the Abraham Accords and praise for its innovative technology, aiming to make its startup potential ecosystem available to partners and allies. India, for its part, is keen to gain access to advanced technology and increased investment. The UAE's aim is food security, and it wants to invest in renewable energy, along with access to the large Indian market.

No wonder, then, that the first two projects announced by I2U2 member countries are tied to food security and clean energy. The UAE will invest US\$2 billion in India to build integrated food parks "to reduce food waste and spoilage, conserve fresh water, and employ renewable energy sources" using American and Israeli technology.⁵ The second initiative involves the three countries investing in building a hybrid renewable energy project in India.

The Arab Gulf countries have long sought a solution to food insecurity, and the supply chain crises resulting from the COVID-19 pandemic and the Ukraine war have only reinforced their desire to source food from proximal regions. As home to the International Renewable Energy Agency (IRENA) and the host of COP28-the UN Climate Change Conference scheduled for December 2023—the UAE is keen to showcase its investment in renewable energy. In addition to investing in renewable energy, the UAE could become India's preferred strategic oil reserves partner. American efforts to discourage India's dependence on Russia advance every time India views the Gulf and not Russia as its source for energy supplies.

The US's Indo-Pacific strategy has involved trying to wean its security partners off economic dependence on China. Like other US allies and partners in East and Southeast Asia, the UAE and Israel maintain close economic relations with China as well as a security partnership with the US. Instead of pressuring the UAE and Israel to reduce Chinese investment ports telecommunication and infrastructure, Washington appears to be encouraging them to look towards India, which is a close partner of both Tel Aviv and Abu Dhabi.

This is part of what US Treasury Secretary Janet Yellen has described as 'friend-shoring'—encouraging businesses in the US and friendly countries to invest in other friendly countries. For example, in September 2022, Indian company Adani, in collaboration with an Israeli company, won the bid to privatise Israel's Port of Haifa, which was previously going to be built by a Chinese company.

The goal of outcompeting China necessitates emphasis an technology, both current and future, and countries such as India, Israel, and the UAE are critical to this. Israel is a leading innovative economy, with one of the highest expenditures as percentage of GDP on research and development (R&D), at 5.44 percent.7 For the US, this stands at 3.45 percent; for the UAE, it is 1.45 percent; while India stands at only 0.66 percent. The I2U2 grouping, however, can "harness the vibrancy" and "entrepreneurial spirit" of these four countries.8

Washington seeks a more integrated West Asia, which is stable and less conflict-prone, "reducing the resource demands the region makes on the United States over the long term." It is also critical for American and allied interests that no foreign or regional powers "jeopardize freedom of navigation through the Middle East's waterways" or that any country tries to dominate the region.⁹

Moreover, Israel and the UAE have an interest in a stable, conflict-free South Asia. Both countries understand India's security challenges, including those relating to Pakistan and Afghanistan, and are willing to help India. For India, the Middle East holds strategic importance as it hosts the largest Indian diaspora, at around 7 million Indians, as well as being the source of more than 60 percent of the country's energy imports. Ensuring open sea lines of communication (SLoCs) is as critical for India as it is for the US and its allies and partners.

Israel's military intelligence expertise and economic and technological prowess partners well with India's ability to provide workforce and access to a populous market. The UAE's firm commitment to the Abraham Accords has placed it in a unique position that allows it to influence Israel in protecting Palestinians in Gaza and the West Bank while remaining a steadfast

Muslim opponent of radical Islamist extremism.

India, home to the second largest Muslim population in the world and which faces terrorism threats, appreciates Israeli and Emirati support against terrorist outfits. India also has good relations with both Israeli and Palestinian leaders and has long championed a two-state solution like the US.

The US is one of the top defence suppliers to all of these countries, supplying 68 percent of all arms purchased by the UAE and 78 percent by Israel. From zero defence trade in 2008, US military sales to India reached US\$22 billion by 2022. Israel is also one of the top three suppliers of defence equipment to India, with 43 percent of Israel's arms exports currently being sold to India. The more India purchases from Israel, the less it will purchase from Russia—again benefitting America's strategic and security interests.

To be sure, there are certain divergences in priorities among I2U2 countries: Israel and the UAE view Iran as the key threat, whereas India has historically had good relations with Iran. Meanwhile, India and the US share concerns about China's growing pre-eminence, but Israel and the UAE do not view China from the

same lens. However, these differences will not prevent I2U2 from expanding cooperation in trade, energy, and technology, or even from evolving into a strategic partnership.

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Bridging Geoeconomics and Geopolitics: An Emirati Strategic Vision of I2U2 Complementarity

Ebtesam al-Ketbi

tretching from the Mediterranean Sea to the Arabian Sea and the Indian Ocean, the I2U2 alliance was conceived as a UAE-Israeli project.1 From the UAE perspective, the most critical dimension enabling this project is the most obvious one: Israeli-UAE strategic rapprochement. Without the Abraham Accords, such brainstorming, envisioning a quartet bringing together Israel, India, the UAE, and the United States on a platform for economic development and technological cooperation, would not have been possible. Therefore, the regional geopolitical context within which this project was born is critically important.

What about the global context? This is where Washington and New Delhi come in. Both the UAE and Israel are keenly aware that the post-American Middle East is emerging because of the US's obsession with China. From the UAE perspective, India's inclusion in the quartet assures a sharper US focus in the region—a less post-American Middle East due to India's relevance for the American strategy to contain China.

This geopolitical context for the I2U2, where regional and global dynamics converge, is worth elaborating to better understand the UAE's perspectives and interests. Great-power competition with China and Russia at the global level colours Washington's current national security approach. From the UAE perspective, this American paradigm, focused on great-power competition, is problematic for two main reasons. First, it forces Washington to prioritise the Asia-Pacific region at the expense of the Middle East-i.e., the famous "pivot to Asia" imperative driving American foreign policy since the Obama administration.2 Second, this competition creates dynamics of a 'new Cold War' wherein US allies are often under pressure from Washington to choose their side.3 Neither of these is in harmony with the UAE's strategic interests.

A Strategic Continuum

The UAE sees Asia and the Middle East in a strategic continuum, and therefore struggles to understand the logic of an American pivot to Asia from the Middle East. Perhaps, most

importantly, it does not want to be forced to choose between its favoured military partner (i.e., the United States) and its main trade partners in Asia. A vision of complementarity instead of the either-or is at the heart of the UAE's global vision. However, Abu Dhabi is also pragmatic, and has started to think of a post-American Middle East by prioritising its economic and strategic interest in the diversification framework.

On the military front, the UAE is not writing off the need for security cooperation with the United States. On the contrary, it wants to deepen its security partnership with the United States and is hoping for some strategic continuity in Washington's approach to the Middle East. Simply put, Washington remains Abu Dhabi's security partner of choice. On the economic front, Abu Dhabi rejects the imposition of having to choose between China and the United States.

Instead, the UAE's vision of complementarity is one where defence cooperation with the US does not come at the expense of the UAE's growing economic, financial, diplomatic and strategic engagements with Asia. This vision of complementarity also sees

Asia and the Middle East as comprising an interconnected hub where the UAE is the central anchor. This paradigm also frames the UAE's "economy first" logic in harmony with geopolitical and geostrategic interests, as encapsulated in Abu Dhabi's 'Projects of the 50' vision.⁴

In that sense, it is in the Emirati interest to see a change in the mental map of American strategists who fail to connect the Middle East to Asia. This is where India comes in, with the concept of 'West Asia', bringing India and the Middle East together. This UAE-Israeli strategic vision of economic, technological and diplomatic cooperation with India has an American mirror image wherein India is the most critical player in Asia one without which the US strategy of China's containment has no chance of success. In that sense, India is the glue that holds the regional concept of 'West Asia' together, thus enabling the Biden administration to see the Middle East and Asia in a continuum.

Significance of India's Inclusion

Disrupting the deeply rooted mental map of a Middle East disconnected

from Asia in the American imagination is, therefore, a critical strategic achievement of the I2U2 concept. This is also why India's inclusion in a West-oriented economic and strategic project is the core geopolitical and geoeconomic contribution of the I2U2 vision.⁵ India's deeper economic integration with two strong Middle Eastern economic powers breaks the artificial dichotomy and the binary fallacy in the American logic of pivoting to Asia, which wrongly considers the Middle East and Asia as separate entities.

India's economic and strategic relations with the Middle East, particularly the strong trade, defence and diaspora relations between India and the UAE-Israel duo, provide a strong geopolitical base for the I2U2. At the level of geocommerce, the UAE is India's number-two export destination, with goods worth about US\$25 billion flowing from the South Asian giant to the Gulf Arab country.6

India is the UAE's number-one export destination, with about US\$43 billion in exports. When the first I2U2 meeting announced an ambitious food security initiative through which the UAE will invest US\$2 billion to develop

a series of food parks across India with American and Israeli assistance to tackle global food insecurity, what may have seemed like a breakthrough project was actually repackaged from the earlier agreements between India and the UAE.⁷

The UAE has also been a magnet for Indian professionals and workers. Remittances worth about US\$15 billion flowed from the UAE to India in the 2020-21 financial year. Roughly 3.5 million Indians live in the UAE—about a third of the Gulf nation's total population. The short distance from Mumbai to Dubai makes UAE airports India's gateway to the world. About one-third of all international flights that land in India take off from the UAE.8

India also receives significant amounts of oil from the UAE and arms from Israel. New Delhi and Abu Dhabi began to align more on geopolitical affairs, beyond the conventional three pillars of their relationship: oil, remittances and the diaspora. The UAE and India recently signed an ambitious free trade agreement to double down on their growing commercial ties.

The Israel-India strategic relationship has also been growing over the

past decade. Israel is a major arms supplier to India and Israeli companies have been widely engaged in water management issues to boost India's agriculture sector. According to the International Monetary Fund (IMF), India clocks in as Israel's third largest export destination. More recently, an Indian firm was awarded the contract to manage a key terminal at Israel's Haifa Port.9

Geoeconomics to Geopolitics

There is another dichotomy that the UAE's vision of complementarity is interested in breaking: the binary that sees geoeconomics and geopolitics as separate realms. All geoeconomic cooperation projects do not end up with political or security cooperation. However, when like-minded countries with similar interests, values and visions come together, some creative complementarity emerges between geoeconomics and geopolitics. The 12U2 has such potential for the UAE. Joint projects—starting as cooperation on food and water security, clean energy, technological innovation and health infrastructure—can serve as precursors to strategic convergence in geopolitical terms.

The UAE favours economic engagement over confrontation, diplomatic exchange over coercion, cooperation and strategic strategic animosity at the regional global levels. Dialogue with Iran, improved relations with Turkiye, mediation between India and Pakistan, and complementarity between the United States and China in security and economic terms are key examples of the UAE's strategic vision, built on shared peace, stability and prosperity.

At present, the I2U2 is primarily economic and developmental an cooperation project. However, the platform provides a model for "minilateralism" as a more agile, flexible, and efficient way to think about shared strategic challenges and opportunities than what is offered by the heavy, cumbersome and bureaucratic multilateralism of the United Nations. The security paradigm of geostrategic cooperation is not disconnected from longer-term drivers of geoeconomic convergence. After all, such convergence at the regional level has already produced the Abraham Accords.

As far as India is concerned, Abu Dhabi has proved it can play a significant mediation-oriented diplomatic role in conflict resolution. For instance, in February 2021, the UAE facilitated a joint agreement between India and Pakistan to uphold the 2003 ceasefire agreement across the Line of Control—an unprecedented diplomatic success for Abu Dhabi that aims to solidify relations with India without antagonising Pakistan.

From diplomacy to military affairs, New Delhi and Abu Dhabi have cultivated a deep, strategic alignment—the UAE even invited India to the Organisation of Islamic Cooperation (OIC) foreign ministers' meeting in Abu Dhabi for the first time in 2019. That year, the UAE also granted Prime Minister Narendra Modi the 'Order of Zayed', the highest civilian award in the Emirates, despite the international outcry over his government's crackdown in Kashmir.¹⁰

The I2U2 is now bringing this convergence between geoeconomics and geopolitics to West Asia. It is a bottom-up strategy of cooperation where key areas that require urgent attention—such as food security and clean energy—are already identified.¹¹ Progress in these areas and beyond

will not be possible without broader economic, financial, technological, social and cultural convergence between the Middle East and Asia.

Conclusion

The four countries that currently constitute the I2U2 have their own comparative advantages at the financial, technological, military and demographic levels. They also have different risk profiles with regard to how they see the world, with some, such as India and the UAE, willing to maintain strategic autonomy instead of thinking of the world as blocs. Despite the importance of its strategic relations with the United States, from the UAE perspective, it would be a mistake to see the I2U2 grouping as an answer to US-China tensions. The Emirati vision of strategic complementarity wants to diminish this tension rather than fuel it.

The UAE's strategic interests in the I2U2 are based on three priorities. First and foremost, the much-needed institutionalisation of a geoeconomic alliance is already in the making. Second, the mental map that fails to connect the Middle East to Asia needs to change. Finally, there is a need to see the sequencing and symbiotic

connection between geoeconomics and geopolitical dynamics. The ultimate UAE vision is that such complementarity will make the I2U2 an attractive model of geoeconomic minilateralism that

will gain geopolitical relevance soon with the potential inclusion of partners, such as Saudi Arabia, Egypt, Indonesia and the United Kingdom, in an I2U2 Plus format.¹²

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Strategic Underpinnings of the I2U2

Paul Kapur and Ankita Dutta

hile the United States (US) increasingly turns its attention towards the Indo-Pacific, China has made strategic inroads in regions that the US has deemphasised, including West Asia. The expanding Chinese influence could be mitigated by the US and India leveraging their burgeoning partnership to promote common interests and occupy strategic space in West Asia. This logic underlies the growing Indo-US strategic cooperation in West Asia, which has expanded to include Israel and the UAE.

Two factors have facilitated India-US cooperation: First, both countries have taken a flexible approach to demarcation of geo-strategic boundaries. Second, strategic changes in the Middle East and the Indo-Pacific have encouraged the expansion of India and the US's bilateral West Asian partnerships into multilateral cooperative groupings. Showing a propensity for flexible geographical thinking, India and the US have championed the Indo-Pacific concept, maintaining that, contrary to traditional strategic approaches, the Pacific Ocean and the Indian Ocean are not separate. Rather, these two form a coherent whole that is connected economically and demographically through sea lanes and choke points, and by the threat of rising Chinese power.

India's approach to the Indo-Pacific region is even more expansive than that of the US. Washington considers the Indo-Pacific as stretching from its West coast to India, ending at the border of the US Central Command. However, India is of the view that the Indo-Pacific's boundaries should stretch wider according to Prime Minister Narendra Modi, "from the shores of Africa to that of the Americas."1 Although the US has not officially agreed with this definition, it is in fact taking a broader view, expanding cooperation and enabling the two countries to push their Indo-Pacific partnership westward into new geographies such as West Asia.

As this process has unfolded, India and the US have been involved in creating increasingly diverse West Asian strategic groupings, facilitated by three developments: First, poor relations between Israel and other states within West Asia had forced India

and the US to treat their longstanding relationships with them, separately. However, the normalisation of relations between Israel and some of the Gulf States under the Abraham Accords has enabled India and the US to work with the other two parties (Israel and the UAE) in new groupings, creating opportunities for denser relationships and more robust cooperation.

Second, China has steadily pushed its military and economic presence westward, in the Indian Ocean and beyond, with Chinese outposts stretching from Sri Lanka to Gwadar, to Djibouti. Across West Asia and North Africa, 17 countries have joined the Belt and Road Initiative (BRI); India and the US have also sought to enhance their cooperation in this area as they seek to protect their western flank and avoid ceding this space to China. This effort is a departure for the two countries, which previously contemplated cooperation mainly with the East. However, China's increased presence, in addition to new cooperative opportunities in West Asia, has led to a strategic rethinking.

A consequence of this has been multilateral cooperation in West Asia among the US, India, UAE, and Israel. In October 2021, the group held a

ministerial-level meeting to discuss a range of issues including trade, climate change, energy, and maritime security. The launch of the initiative to address issues related to human security points to the emergence of a new cross-regional approach in West Asia. The joint statement released after the leaders' summit in July 2022 pointed to "...the advancement of economic cooperation in the Middle East and South Asia, and in particular for the promotion of sustainable investment amongst the I2U2 partners," adding "...intend that the partners mobilize private sector capital and expertise"2 to operationalise the six areas of cooperation-water, energy, transportation, space, health, and food security. The grouping seeks to leverage the strengths of each country: India's demography and market; Israel's innovation capacity; the UAE's financial heft; and the US's leadership.

Although I2U2 is focused on geoeconomic and infrastructure development, security and geopolitical issues within the region cannot be ignored. The four partners share robust bilateral relations, including in defence, cybersecurity, and intelligence sharing. India has signed strategic partnership agreements with all three countries and maintains multifaceted defence relations with them. The US and Israel were the third and fourth largest exporters of arms to India in 2017-21.3 The four partners also participate in various military exercises bilaterally (such as the Indo-US Yudh Abhyas) and multilaterally (such as Desert Flag, hosted by the UAE).4 The strategic relations between the US and UAE are evident by the fact that Abu Dhabi hosts Al Dhafra, one of the largest American military bases, as well as naval bases in the Port of Jebel Ali and Fujairah. The US also maintains robust security relations with Israel and has partnered with Tel Aviv to develop capabilities such as the Iron Dome air defence system.5

The Abraham Accords has also led to the normalisation of relations between Israel and the UAE and provided them with avenues to further their partnership in various sectors. In terms of economic relations, India and the UAE's comprehensive economic partnership agreement entered into force in May 2022; the UAE and Israel signed a historic free trade agreement in the same month. The US is the largest trading partner for both India and Israel, while India is UAE's third largest trading partner.⁶ India has also

elevated its strategic partnerships with the US and the UAE through the Global Strategic Partnership (2020) and the Comprehensive Strategic Partnership (2017), respectively.

While bilateral convergences appear to be driving I2U2's agenda, it does not mean that there are no strategic divergences. Two key divergences for the partners are their relations and outlook towards Iran and China. With Iran, the relations between Washington and Tehran have been on a downward spiral since the US unilaterally withdrew from the Joint Comprehensive Plan of Action (JCPOA). Further, the growing strategic presence of Iran in Syria and Iraq has caused concern in Israel. On the other hand, historical ties and efforts to promote regional stability have led India and the UAE to remain engaged with Iran.7 Similarly, the four countries diverge in their outlooks towards China. As stated earlier, India and the US are wary of increasing Chinese presence in the region. The US has been particularly concerned about Chinese investments in key infrastructure projects, such as the construction of terminals at Khalifa Port⁸ in the UAE and Haifa Port in Israel.9 The UAE and Israel, in contrast, have welcomed Chinese investments in the fields of energy, technology, trade, and infrastructure.

Setting aside their divergences to focus on the convergences in their approach, the strategic logic behind I2U2 appears to be twofold—tackling transnational challenges identified in the first summit, and increasing their geopolitical footprints. For the US, this grouping is an opportunity to negate the idea of an American retreat from West Asia after their 'pivot to Asia'. For India, it is a platform to expand engagement with the region and signal its growing strategic cooperation and aspirations with the other three partners. For the UAE and Israel, it provides an avenue to formulate a blueprint for future cooperation within the region and its partners. Though not overtly directed against China, I2U2 may ultimately be able to offer Middle Eastern states with alternatives to Chinese investments and engagements. It also enables India and the US to expand their strategic cooperation into a new area, affords India a larger global role, and avoids formally tying the parties to each other through treaty obligations.

This new multilateral cooperation is still in its initial stages. In order to strengthen it, the US needs to pursue its transregional goals holistically, leveraging synergies between areas that it previously treated as separate. India, for its part, will have to make good on the promise of the new cooperation, energetically participating in and promoting these multilateral, transregional groupings. Finally, all four participants will need to institutionalise the emerging groupings, meeting regularly and specifying goals that are both feasible and substantive.

While a key aspect of their respective bilateral relations is defence and security partnership, this is currently absent in the larger agenda of the I2U2 as it focuses on bringing economic and technological expertise to the table. Nonetheless, if members so desire, they could consider security-related issues, such as humanitarian and disaster relief and anti-piracy measures, more directly in the future.

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I2U2 Food Security Project: A Trans-Regional 'Alternate Supply Chain'

Sanjiv Puri

he global food supply chain is currently under tremendous stress. The Global Report on Food Crises (GRFC) 2022 estimated that "close to 193 million people [are] acutely food insecure and in need of urgent assistance across 53 countries/ territories." The figures are alarming, representing an increase of nearly 40 million people from the 2020 data. The Food and Agriculture Organization's (FAO) 2022 State of Food Security and Nutrition in the World report examined the data on global hunger and estimated that about 9.8 percent of the world population is affected by hunger, and the proportion is likely to increase if the current situation is not reversed.2

While food insecurity has been a persistent global issue, it has been worsened by various factors, exposing the fragility of global and local food systems across geographies. These include increased frequency and severity of extreme weather events, COVID-19-related supply chain disruptions, increasing conflict and insecurity, and rising global food prices. The Ukraine war has further exacerbated the already acute food

insecurity, with severe repercussions for food-deficit countries that were dependent on imports from Ukraine and the Russian Federation for staple food supplies and fertilisers.

Impact of the Current Food Crisis

The current food crisis has had a farreaching impact at both the global as well as individual levels. The developmental gains of various developing countries in sub-Saharan Africa, for example, have been severely disrupted; foodimporting nations are in increased debt due to their inability to pay rising food bills; and famine-like situations are prevailing in various regions of Africa. Livelihoods have been shattered, and there has been a general rise in cost of living, which has been a cause of worry even in wealthy nations.3 This has also had detrimental effects on health and well-being. Persistent malnutrition and undernutrition have resulted in increased incidence of stunting, wasting, and starvation across the globe. This can have long-lasting impacts on global health through impaired immune systems that increase susceptibility to infectious diseases and cause developmental delays in children.⁴

These consequences warrant urgent and immediate action by the international community at the local, regional, and global levels. The imperative is for nations to work together and ensure food security, as highlighted in Sustainable Development Goal 2 which envisions a world free from hunger, food insecurity, and malnutrition.

However, in the context of global cooperation, the desired goals of food security and poverty alleviation take a long time to be achieved through conventional export and import transactions as well as multilateral trade rules. A potential solution to this is to develop focused alternative supply chains amongst like-minded countries with complementary strengths that would promote cross-border food production outsourcing in a climate-resilient and nature-positive manner.

I2U2 Food Security Project

Given the need to mobilise investments and political will to address the causes and consequences of the escalating food crises through humanitarian, development, and peace perspectives, the I2U2 grouping has identified food security as a key area of intervention. The four countries have proposed a project aimed at developing food parks integrated with full value chain development across various Indian states, including Gujarat, Madhya Pradesh, and Maharashtra. India's endowments in natural resources and headroom for growth in the productivity of crops underpin this pursuit.

The project has three key objectives: to improve the food and nutrition security of the UAE, followed by other countries in the region; to raise the incomes of smallholder farmers in India and contribute to the reduction of economic inequality through holistic cluster development; and to strengthen the climate resilience of agricultural production and reduce greenhouse gas (GHG) emissions by deploying emerging technologies with assistance from Israel and the United States (US).

The project seeks to establish a value chain cluster model that will shape a sustainable and competitive end-to-end agricultural value chain. The model will consist of four components, including farmers and Farmer

Producer Organisations (FPOs), cluster development, product-centric value chains, and global marketing and branding. For farmers, it will create a digital network, focus on farm extension services based on productivity and sustainability, and make provisions for post-harvest activities both on and near the farm. While developing clusters, the emphasis will be on infrastructure (such as cold storage and testing labs), agritech, research and development (R&D), and food processing. While forming value chains, the model will try to include a wide range of products such as spices (turmeric, chilli, cumin), fruits and vegetables (pineapple, mango, pomegranate), food grains (wheat, rice, bajra), and other agro-commercial products such as shrimp, coffee, and tea. The initial list of products prioritised by the UAE comprises banana, potato, onion, rice, and spices. Finally, to ensure profitability of the project and address unique market requirements, an attribute-based branding strategy will be developed while negotiating tariff and non-tariff barriers to be at their minimum for all the countries involved.

Each of the four countries of the grouping are leveraging their expertise. From the UAE, ADQ (an active investor

and sovereign wealth fund located in Abu Dhabi) is taking the lead in shoring up the required finances and identify key importers. From India, a three-way partnership led by the state governments, enabled by the central government and anchored by the private sector (members of the Confederation of India Industry or CII) is being developed, while onground deployment will be done through FPOs. The Confederation of Indian Industry-Food and Agriculture Centre of Excellence (CII-FACE) is coordinating the induction of possible value chain players, including ITC, Innoterra, and Olam, who participated in the development of the concept. Development financial institutions from the US have also expressed interest in supporting the project, especially on technologies related to climate resilience and water use efficiency. Finally, Israel, as a hub for innovation, will be sharing relevant technologies and sustainable agricultural solutions with its Indian counterparts through already established centres of excellence across verticals. So far, potential cluster locations have been shortlisted in the states of Gujarat, Maharashtra, Madhya Pradesh, Telangana, Andhra Karnataka, Punjab, and Pradesh, Haryana.

Government assistance is also required to make the project a success. Since the project is based in India, private players have put forth a few suggestions for Indian government officials to facilitate the smooth functioning of value chain clusters. These include convergence of schemes for farmer capacity building and agricultural development; infrastructure investments make farm-to-port logistics costcompetitive; suitable incentives to anchor investors to improve project viability, such as higher allocation under PLI scheme; declaration of clusters as export zones; and negotiating trade barriers with government officials from other countries expected to be involved in the project.

Plan of Action

Progress has been made since the announcement of the project in July 2022, with frequent meetings taking place between representatives from

all four countries to align all the stakeholders. The focus should now shift to on-ground implementation. All four countries should jointly review their trade policies and procedures and rationalise tariffs and maximum residue limits (MRLs), wherever necessary. Discussions should be held with identified importers and exporters to create a roadmap for country-specific and demand-responsive crop value chain clusters, which should then be shortlisted within the identified Indian states and translated into detailed project reports.

Depending upon the success of this project, similar models can be replicated in West Asia, South Asia, and Africa to cater to the food security needs of certain countries or to leverage the production ecosystem in others. The enthusiasm with which the I2U2 countries have embarked upon facilitating a joint practical approach towards food insecurity holds promise.

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Strengthening the India-Middle East Food Security Corridor through the I2U2 Partnership

Rizwan Soomar

ecognising the trends emerging from the shifting geopolitical climate over the past few years, India has been swift to execute various bilateral and multilateral partnerships that help open access for its products to markets globally, on competitive tariff conditions. Completing the execution of the Comprehensive Economic Partnership Agreement (CEPA) with the United Arab Emirates (UAE) within days-significantly quicker than its ongoing trade negotiations with other countries—highlights the country's effort to increase its influence in West Asia and work towards fulfilling the trade potential of both countries.1 In addition to expanding economic relations, ensuring food security is a key area of cooperation between the UAE and India. This has been further accelerated through the I2U2 platform.

Today, food supply across the world is facing an impending crisis, owing to a combination of war, inflation, energy scarcity, and climate change. Estimates say there could be a deficit of roughly 15-20 million metric tons of wheat and corn from the world's supply of exported grain in 2022. This further

pushes countries to secure their food supply chains and develop cooperative mechanisms to build resilience in their existing national food systems.²

I2U2: A Mutually Beneficial Multilateral Partnership

The US\$2-billion investment committed by the UAE to developing a series of integrated food parks in India under the I2U2, has been an important part of the UAE's logistics plan for the India-Middle East food corridor since 2017. The strategic foundations of the I2U2 with regard to developing food systems in India were signed as part of the Comprehensive Strategic Partnership (CSP) agreements in 2017, when cooperation frameworks in maritime transport, freight logistics and food processing were agreed upon.

The I2U2 expands the ambit of food security cooperation by bringing the United States and Israel to the fold. For India, which is looking to create capacity for higher value-added food processing systems, Israel and the United States will provide technology transfers for implementing agrotech and clean-tech solutions.

These will help further reduce India's water consumption in agriculture and eliminate food wastage through enhanced warehousing infrastructure.

This makes room for investment opportunities businesses for establish not only the infrastructure, but also the entire value chains between the two countries and develop a food security corridor for seamless movement of food supplies. The UAE is a crucial gateway for India to the western region of the Indo-Pacific, especially the African region. Being the second largest producer of rice, wheat, sugarcane, groundnut, vegetables, fruit and fish in the world, India will provide the UAE and Israel with the necessary access to food supply chains at a time when one of the most prominent wheat-producing baskets in the world is locked in a conflict.

Strategic implementation of these partnerships will need participation from the private sector, which can be driven through public-private partnerships (PPPs). This provides the United States with an opportunity to become more prominent in the Indo-Pacific, driven by infrastructure- and clean-tech-led investments in regional partners.³

Resolving Operational Bottlenecks in Member States

The potential success of bilateral and multilateral groupings hinges on the propensity of all member countries to collaborate synergistically on advancing an enabling regulatory environment. Sanitary and phytosanitary (SPS) measures assume a crucial dimension in food safety and animal and plant health standards as they directly dictate a region's food security and public health. These norms are traditionally prescribed through scientific reasoning by individual countries and can mandate products to be harvested from disease-free areas and have minimal pesticide residues and additives.

The World Trade Organization's Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement)⁴ has improved transparency, harmonisation efficiency and in ecosystems, agricultural especially in those of developing countries. It is, however, often associated with high implementation costs, which often position developing economies disadvantageously in a global trading system.

As agricultural exports attain significance under CEPA, the countries

endeavour to enhance transparency and application of each party's SPS measures. For example, to fulfil its daily national dietary requirements and correspondingly ensure food security, the UAE will align the SPS Agreement with the specifications of the Food Safety and Standards Authority of India (FSSAI) and subsequently extend the deliberation to Israel for standardising a regulatory mechanism, acceptable to all three countries. Additionally, the binding regulations of the Essential Commodities Act and the Minimum Export Price in India need to be addressed to provide the requisite push to the I2U2 food security initiative.

Separately, technology has emerged as a subject of interest for various multilateral groupings, including the 12U2, wherein the United States and Israel will be lending their technical expertise for integrated food parks in India. Israel has been a skilled partner in India's ambition of being the food basket for West Asia and has, in the past decade, collaborated extensively to enhance India's agrotech ecosystem. As the member countries of the I2U2 have prioritised techrelated development domestically and are reputed for being at the forefront of technological innovation, each will benefit from converging their digital mandate by setting up a framework that outlines a unified tech agenda. This gradual harmonisation will accelerate technology transfers in the Indian agricultural sector by potentially providing high-quality seeds and enhanced irrigation technologies to farmers, as well as expanded market access.

India has also aimed at crafting an all-inclusive trade deal with multiple countries that includes subjects not directly connected with trade, such as data governance, digital trade, and intellectual property rights. As India evolves its data protection policy, it will benefit from bilateral consensus on some of the key provisions, including data localisation and regulation of non-personal data, as this will be essential for promoting cross-border tech transfers in agriculture.

Enhancing Logistics Framework in India

The success of a food security corridor hinges on effective market linkages, covering producers, retailers and consumers, for ensuring minimal food loss across the supply chain. For instance, in 2019, the UAE

committed US\$5 billion to eight food processing units in Madhya Pradesh, Uttar Pradesh and Gujarat and US\$2 billion to contract farming, sourcing of agricultural commodities and related infrastructure⁵. Hinterland connectivity will be a key enabler to help expand the domestic transportation infrastructure, modifying the level of access to agricultural products. Consequently, development of multimodal logistics in strategic, geo-clustered locations will create multiple touchpoints along the value chain that will reduce traditional wastages as well as help with the export of agricultural goods.

There is an express need to curate and expand the logistics infrastructure to cater to the short shelf life of perishables as well as to the seasonality of agricultural produce by encouraging development of regional procurement centres, sorting centres, and storage and refrigeration facilities, supported by a robust transportation grid. Reliance on the PPP model to provide product-oriented, end-to-end logistics solutions, bundled with trade financing across food transportation corridors, is thus critical to encourage all stakeholders in nurturing this global value chain.

The National Logistics Policy (NLP), recently unveiled by Prime Minister Narendra Modi, rightfully addresses these concerns. It proposes the creation of sectoral action plans for providing logistics solutions specific to industries while also developing dedicated corridors for swifter movement of goods. Its focus on warehousing creating standards will be particularly important for the agricultural sector, boosting modern storage facilities for perishables. The policy has the potential to significantly reduce inputs costs of agri producers and increase their cost competitiveness, helping their produce reach more consumers in India and across the globe.

The Private Sector's Role in Mobilising Food Security Corridor

With the inception of CEPA as well as the I2U2, private players in the logistics ecosystem can increasingly collaborate to ensure seamless movement of food exports from India. Logistics service providers have the capability to ensure digitisation of food value chains, which is likely to provide visibility 'from farm to fork', helping identify risks along the

supply chain and improve quality in real time.

Additionally, as DP World is the logistics partner for operationalising the food security corridor proposed under CEPA, it can employ its extensive network of integrated logistics services—ranging from container terminals at major ports, such as Nhava Sheva and Mundra, to private rail rakes to cold chain storage warehouses—for and advancing food exports from India to the UAE. Operating container terminals since 1997 and having been instrumental in operationalising the first PPP project in the ports sector in India, the Dubaibased multinational logistics company has expertise and competency for collaborating synergistically with public and private stakeholders on developing a well-integrated, end-to-end logistics infrastructure, necessary for the India-UAE food security corridor.

Conclusion

The comprehensive momentum of partnership and cooperation, built by governments to address food security problem, provides an opportune time for all stakeholders in the ecosystem to come together and collaborate on enhancing food security. Every member of the industry, however, has an equally important role to play to drive action on ground through sustainable PPP models and encourage innovations, right from food production to food delivery. Swift movement of goods through dedicated food corridors, coupled with fasttracked cross-border clearances, will help build agility into the food supply networks and ensure faster transfer of food supplies to vulnerable regions.

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Energy Security: How I2U2 Can Promote Solar Energy Efficiency

Eran Meller

olar energy has become a key component of the global energy mix, thanks to its abundance, scalability, and falling cost. As the world shifts to renewable energy use, solar energy has the potential to play an increasingly important role in ensuring energy security. Ensuring a reliable and sustainable supply of energy is a complex and multi-dimensional challenge that requires coordination and cooperation among countries, as well as investment in new technologies and innovative solutions.

Over the past decade, the solar energy industry has evolved significantly. Energy companies need to transition to automation to keep up. Automation is not just about staying in the game; it is the key to unlocking future growth. This future is closer than it seems; only those who act now will survive long enough to reap the fruits.

The rise in demand for solar energy, coupled with the complexity of the generating equipment and the pressure to keep energy costs down, has made it critical for companies to ensure maximal performance. Managing millions of modules, structures, and

strings, in a single project is impossible without automation, close monitoring and regular analysis. Recent projections claim that the global energy market could reach USD 10 trillion by 2030, with an estimated USD 3.4 trillion being invested in renewable energy, USD 2.72 trillion of it in wind and solar.2 By 2030, 54.1 percent of all installed capacity will be renewable energy, nearly 40 percent of it being a combination of solar and wind. (Other sources of renewable energy are small hydro projects up to 25 MW, and biogas.)

The impact of these changes on the industry will be immense. Since margins are low, staying profitable will require predictive analysis, and the ability to respond in near real-time. The amount of data generated has grown exponentially, making automation and advanced technologies essential for effective analysis.

The rapidly changing trends in solar energy are forcing energy companies to adopt new technologies to stay ahead of the curve. Robotics, automation, and effective use of data are already making a huge impact on large-scale

solar projects across the world. In a few years, they are expected to become the new industry standard. Implementing these technologies will improve efficiency, reliability, and security of solar sites.

One example of new technologies is the use of artificial intelligence (AI) and machine learning (ML) to optimise the performance of solar panels. These allow for real-time monitoring and analysis of the panels' performance, thereby addressing any malfunctioning quickly and improving the overall efficiency of the project.

The use of robotics and automation is also becoming more and more common in the solar industry. In some markets such as India and West Asia, major players are already implementing these technologies in some of their projects. Tasks such as inspections, maintenance, and cleaning of solar panels are being performed entirely by robots. These are equipped with advanced sensors which monitor data. performance, collect and detect problems early. This prevents expensive downtime, increases the lifespan of the solar panels and the energy generated, thus improving the overall efficiency of the project. Robots also reduce the risks associated with human error, which can be both costly and dangerous in large-scale industrial operations.

Ecoppia has been industry leader in solar automation for over a decade. Our solutions are not only improving site management but also eliminating barriers that hinder growth in the solar industry. Ecoppia is proud to play a role in driving the renewable energy transition, particularly in countries such as India, Israel, the United States and the United Arab Emirates – the countries which make up the I2U2 alliance.

12U2, which includes sharing knowledge and experience among the four countries, could bring them significant benefits in energy security and economic growth, and lead to better international cooperation. Each country has unique strengths and capabilities that could be leveraged to improve reliability and sustainability of solar energy supply. By sharing best practices, developing new technologies and processes, and pooling resources, the I2U2 countries could address the challenges of ensuring a reliable and sustainable supply of solar energy. The collaboration will also help mitigate the impact of geopolitical and economic risks on the energy sector and improve energy security. Investing in such

collaborations will be a step forward in addressing global energy and security challenges, and fostering the transition to renewable energy sources.

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How I2U2 Can Enhance Blockchain Use in Defence

Shravishtha Ajaykumar

igital Ledger Technology (DLT) or blockchain is a buzzword these days. While its most popular application is in cryptocurrency, blockchain can be applied in other fields too, in ways more innovative than the introduction of Bitcoin.

To understand these applications, the technology needs to be divided into three main types. The first is public DLT-the form of blockchain that is entirely decentralised, allowing access to anyone, anywhere in the world. The second is private DLT, a permissioned blockchain. Private DLT differs from public in two ways: it requires users' permission to join the network, and it limits transactions to the closed network. Thus, it is more centralised than public DLT. Private blockchain has uses in private sector operations and even in the defence sector, where protecting information from general access is as important as information storage. The third form is consortium blockchain, similar to private DLT but governed by a group of entities rather than a single one. It provides the same benefits as private blockchain, while being partly decentralised for multiuser access.1

I2U2 Countries and Blockchain

I2U2, in a joint statement, declared that its focus areas are water, energy, transportation, outer space, health, and food security.² All of these also have high relevance for the defence practices of countries. This article will discuss the possible uses of blockchain technology in the I2U2 initiative, focusing on the defence sector and its logistics.

As blockchain technology is often identified only with cryptocurrency, its regulatory framework in many countries also does the same. The four countries in the I2U2 platform have all set up their respective frameworks to governing blockchain. India has its National Technology Strategy:3 Blockchain the UAE has a Dubai Blockchain Strategy;4 the US's approach is confined to cryptocurrency, with many regulations that view blockchain and cryptocurrency as synonymous;5 and for Israel, cryptocurrency is a primary regulatory concern, too.⁶ Yet, the scope of blockchain beyond cryptocurrency is rarely discussed.

Most discussions on the application areas of DLT focus on its relevance for the private sector and the consumer market. But consortium DLT can extend these applications to counterspace and defence logistics as well.

Defence and DLT

In the last decade, many countries have begun using blockchain in their security and defence sectors. The US Department of Defence, for instance, has stated that blockchain will play a primary role in military operations in the future. Other countries such as Russia, China, and Israel have begun exploring the use of blockchain for defence.^{7,8}

In defence, blockchain can assist with cyber security, reduce or remove single points of failure, increase efficiency of defence logistics, and help enhance transparency for audits and information sharing. Beyond these, it is the cheapest of database options. Its resilience, safety and immutability are highly useful in maintaining statistics. It is also a sturdy asset for defence drills and programmes.⁹

Maintaining battlefield data using blockchain platforms can help ensure more trusted, secure, and credible data. Supply chain management of aerospace components using blockchain technology can help trace and track records of ownership details, with a trusted history and provenance of components throughout the life cycle.

Furthermore, technologies like 'autonomous swarm'¹⁰ are integral to a modern warfare system as they can be used to protect borders and participate in targeted surveillance operations. Swarmed drones, however, often have longer response times which can severely affect their performance. Such issues can be eliminated using smart contract-based registration on a decentralised blockchain.

Private blockchain platforms can ensure privacy through private channels and access control policies compared to public platforms with zero-access control policies. Thus, areas such as battlefield operations management, border protection, and autonomous swarm operations, can use permissioned or consortium blockchains.¹¹

Blockchain technology has shown immense potential in securing the services and operations of the defence and aerospace industries. However, these industries also face several challenges related to blockchain adaptability and deployment cost. Proposing a complete transition to future blockchain-based architectures defence aerospace and system identifying components, participants, roles, and deployment alternatives. requires further deliberation and investment.

Relevance for I2U2

12U2 can provide a first-mover advantage in blockchain use to its members, allowing them to navigate its space in aerospace and defence, and define its role not only for the alliance but also for the defence sector worldwide. However, the absence of standards and governance rules, the high cost of integrating with legacy systems, and the inherited complexity distributed of technologies, are factors that can affect the successful adoption of blockchain in defence and aerospace.

To be sure, defence departments in different parts of the world are realising the many advantages of blockchain. The European Defence Agency, an arm of the European Union (EU) predicted in 2017 that in the upcoming decade,

the defence studies programs will include novel programmes based on blockchain generation. These DLTs include resilient communication, stable messaging, and other forms of logistic assistance.¹²

The I2U2 alliance allows the four countries to invest in DLT technology and use it to enhance their defence capacities and collaborations. The main application across all such blockchain applications would be to incorporate smart contracts. Traditional business models depend greatly on a centralised commissioned third-party service to reconcile stakeholder conflicts. Such third-party-centric reconciliation is slow and expensive. Blockchain technology eliminates the need for a third-party service for reconciliation. It allows entities to transact with one another in a faster and more economical way. The smart contract is a self-executing code that executes when pre-defined conditions are met.

As noted earlier, consortium blockchain, or non-public blockchain, holds the most value for international and multilateral alliances. It allows the defence sectors of different countries to create smart contracts with one another. In a public blockchain,

admission into the chain cannot be regulated, which puts sensitive information at risk. The use of hybrid blockchain in defence will also help ensure that the alliance is equitable to all partners.

As I2U2 explores different investment areas, it should include the scope for using blockchain in defence. It will help each country establish stronger alliances, strengthening the partnership and ensuring that each country enhances its use of blockchain beyond just cryptocurrency.

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I2U2 and Related Business Perspectives

Suresh Kumar

hen I2U2 was conceived in 2021, soon after the Abraham Accords, there was much speculation as to its geopolitical intent and implications. There was also, inevitably, some scorn—such so-called synergistic 'minilaterals,' it was thought, were susceptible to the impacts of changes in leadership.

Arguably, this minilateral accomplished some quick wins in terms of long-term investment commitments. It was, therefore, a bit of an anti-climax that the first I2U2 joint statement, issued in July 2022 in Jerusalem, largely steered clear of anything overtly geopolitical. The four state leaders customarily endorsed the Abraham Accords and welcomed the Negev Forum—but only in the context of the enlarged economic dimensions and an emphasis on Israel's ability to serve as an innovation hub for the wider world.

In the post-pandemic era and amidst a conflict in Europe, food and energy security came out as some of the top agendas for both diplomacy and business to address. A forum such as I2U2 can prioritise these challenges.

Alternate food supply chain and clean energy projects

The disruptions caused by the prolonged conflict between Russia and Ukraine, respectively the third and fourth largest global food hubs in the world, saw global shortages of critical products in the food and fertiliser sectors in 2022. The disruptions have particularly affected developing economies. I2U2's first priority, therefore, was to initiate the development of an alternative food supply chain to ensure long-term, more diversified food production and food delivery systems that can better manage global food shocks.

The group agreed that the UAE will invest US\$2 billion to develop a series of integrated food parks in India that will incorporate state-of-the-art, climate-smart technologies (presumably from the US and Israel) to reduce food spoilage (India's agricultural wastage runs in excess of 9 percent per annum), conserve fresh water (given the global water scarcity) and employ renewable energy sources.

The second announcement at the July summit concerned a hybrid renewable energy project in Gujarat, comprising 300 MW of wind and solar capacity and complemented by a battery energy storage system. The US Trade and Development Agency has funded a feasibility study for this US\$330-million project.

Several private-sector capital expenditure plans announced subsequently can be traced to the collateral opportunities that the private sector sees in these two investments. One such is India's Reliance Group announcement of a US\$80-billion clean energy initiative in Gujarat, with synergies to contribute towards India achieving 500 GW of non-fossil fuel capacity by 2030.

As the sole beneficiary of both the projects, with the other three countries contributing financing and expertise, India would want to see them succeed demonstrably and ought to vigorously nudge into action the multiple stakeholders involved. To be sure, certain barriers exist. In terms of the food security initiative, the two selected Indian states, Madhya

Pradesh and Gujarat, already have two mega food parks and more than seven general food parks each. The state governments will have to move quickly to either aggregate land for this project from the companies that have been allotted these food parks or co-opt them into the project economics.

Moreover, a lack of transparency and ill-defined institutional accountability can make the projects vulnerable to commercial and political risks. Concrete action and on-ground institutional structures alone dissuade future adversarial political parties from attempting to unravel and negate the outcomes, especially if local employment opportunities are created and benefits begin to flow from the capital and revenue expenditure.

It is not clear if any such measurable progress has been made. Speed of execution will be essential; there is a need to step up the pace of implementation—and to be seen to be doing so. The I2U2 leaders, for their own credibility, ought to insist on quarterly project updates and monitor the execution of these initiatives. A lack of transparency can breed cynicism.

Early institutionalisation of I2U2 is key

Each of the six focus areas marked in the inaugural statement of the I2U2—water, energy, transportation, space, health, and food security—is a rapidly evolving global priority. The group thus needs to build an institutional framework for foreign direct investments in these areas that will be provided with adequate resources in terms of staff and financing, and has clearly laid out Key Performance Indicators (KPIs) to monitor. Teams are needed to roll out future initiatives without waiting for political endorsement in each case.

Apart from some reports of certain Sovereign Wealth Funds (SWFs) in Abu Dhabi studying the I2U2's first two projects, there is little known as to when the first tranche of funds disbursal will take place that will set the momentum going. Going by anecdotal accounts of past experience in the UAE in 2015–2017, there is justification for some healthy scepticism. Even after the then crown prince had committed up to US\$75 billion in investment in India's infrastructure in a joint declaration in August 2015, it was observed that little moved purposefully in India.

Ironically, there was a view in New Delhi that they thought this was another soft loan, i.e., concessional finance promised from a friendly country. Knowing how professionally independently managed the Sovereign Wealth Funds in the UAE are, as well as their diligence and rigorous evaluation of return on investments, this dichotomy in understanding was unhelpful. Indeed, it was not until some plain-speaking by both parties that mutually agreed action plans, professionalism and urgency were brought to bear in the highest echelons of the bureaucracy. India's government and finance central ministry subsequently incorporated the National Infrastructure Investment Fund (NIIF) and ensured, at the insistence of the Abu Dhabi Investment Authority, that it was independently governed and professionally managed by teams with credentials in global project finance and execution.

As the NIIF case shows, SWFs are not very keen on strictly government-run projects. They are clear that even if their leaders pledge, in principle, to certain levels of investments, the actual funds will flow in only after their teams complete their rigorous investment appraisals and are satisfied that the enterprises to be

invested in have strong management structures and robust governance in place to conform to global best practices. Further, government-to-government push can launch and nurture initiatives initially, but an early government-to-business or, better, a government-to-institutions transition is necessary to make progress.

It is imperative, therefore, that both the I2U2 initiatives move from the bureaucratic corridors in New Delhi to professionally managed Special Purpose Vehicles (SPVs) to execute the food security and renewal energy projects under a global governance structure with representatives of all the four countries.

The large and affluent Indian diaspora in the UAE would, if invited, participate in any capital raising for the two projects if they are assured that execution will be credible. In the past, they have rallied to invest in Resurgent Indian Bonds (RIBs) and other similar initiatives—in the UAE alone, about US\$2.7 billion was raised by way of such bonds.

In the wake of the I2U2 announcements, a few delegation visits have taken place from India and the UAE to Israel. In the UAE, the nimble trading and investment communities have responded quickly, forging alliances with their counterparts in Israel, targeting the next Israeli and Emirati unicorns, and seeking Israeli expertise in water, cyber security, and agriculture. The diplomats in the region have played a crucial role in channeling and welcoming these new avenues and breaking the ice. The Indian Business and Professional Council (IBPC) has also sponsored a delegation of over 125 Israeli businesspeople to Dubai, with representatives from domains such as cyber security, food and agriculture, renewable agri-tech, clean tech, energy, water, mobility, transportation, and waste management, along with a number of small and medium enterprises.

In this context, the Adani Group's landmark investment in Israel's Haifa Port in July 2022 merits mention. The Adani Group's flagship company APSEZ and the Israeli firm Gadot joined forces and won the bid to take over the Port of Haifa, with a concession period of up to 2054. Whether it would have happened anyway or whether the I2U2 tailwinds helped, is unclear. But a deal of such strategic significance could not have happened without a nod from the Israeli authorities and possibly even the

US in the background, with counterbids by China adding to the pressure.

The way forward

The trade of goods and services is witnessing rapid growth in the private sector. The Abraham Accords and I2U2 apart, Israel has entered into a Comprehensive Economic Partnership Agreement (CEPA) to boost bilateral trade with the UAE. The latter also earlier signed a CEPA with India in February 2022. This trade tempo will need to be matched and sustained by investment flows, including into modernisation of ports and other enabling infrastructure.

Therefore, it is imperative to institutionalise I2U2 at an apex level—that is, with a development bank and a secretariat staffed by experts from the four I2U2 member countries—as

previously done for diplomatic initiatives such as BRICS. As Abu Dhabi is likely to be the source for the bulk of the funding required, along with the UAE's SWFs, this capital city and centre of political power will be an apt choice as headquarters.

Each I2U2 country will also need to have regional offices so that dedicated specialist task forces are assigned KPIs. Investable opportunities in I2U2 economies will require collective, well-designed blueprints. This can be best done by major private sector companies and financial institutions in the four geographies. Reports suggest that the four countries have already identified and drawn up lists of private sector players to be invited to collaborate.

In Dubai-speak, it is imperative to develop an 'I2U2 Inc.'

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I2U2: A Forerunner for the Future?

Nickolay E. Mladenov

he second decade of the 21st century saw an onslaught of challenges on traditional international COVID-19 relations. exposed humanity's vulnerabilities and the weaknesses of the existing multilateral system in dealing with pandemics, and climate change began creating more pressing challenges to human survival. Both the health and climate crises have forced us to question how states collaborate to tackle challenges that no country can deal with on its own. Yet, even as reality pushes us towards working together, societies are fracturing under the pressure of identity politics, and the system of international relations that has existed since the end of the Second World War is cracking under the pressure of old and new geopolitical rivalries. Meanwhile, the rise of Artificial Intelligence and the growing challenges of food security in large parts of the world create a seemingly bleak and unresolvable mix of problems for world leaders. How do we deal with current challenges of health and food security, climate change, technological advancements, and geopolitical confrontation when we are increasingly divided domestically and internationally?

Rather than forming formal alliances, some countries are exploring and creating new informal and issuespecific collaborations to secure their interests and tackle the future. The Abraham Accords created new opportunities for collaboration that had seemed impossible until the historic decision to open relations between the Jewish state and several Arab and Muslim countries.

In 2021, the I2U2 format, referred to as a 'partnership for the future,' was announced between India, Israel, the UAE, and the US and immediately presented an innovative cross-regional attempt to spur non-traditional cooperation. Short of being a formal alliance, the grouping's genesis can be traced to the desire to address at least three concerns: the negative economic impact of COVID-19, increasing signs of superpower rivalry, and the perceived disengagement of the US from the Middle East. The I2U2 group is also the first format in which India is cooperating with Israel and an Arab country. For the UAE, I2U2 demonstrates the benefits of 'warm peace' emerging from the Abraham Accords. The format also has the potential to serve as a diplomatic amplifier for Israel's engagements with the Arab and Muslim world. Abu Dhabi and New Delhi have been clear about the economic benefits of such cooperation, stating that "the economy offers the best way to achieve peace, security, and progress" and that "by mobilizing the mutual strengths of our countries [...] we can accelerate our agenda and contribute significantly to the global economy." Israel has also been clear that, "in the 21st century, challenges are local, but solutions are global."

Groupings such as I2U2 suggest that power in the 21st century is no longer determined by military prowess alone, but by technology, connectivity, and trade components. Such formats also point the way to how countries that are vastly divided by geography, history, and culture can come together. I2U2 targets neither China nor Iran, but it does look at the need to create new links across continents to address global challenges.

It would be misleading to compare I2U2 to the Quadrilateral Security Dialogue or the Quad (comprising Japan, India, Australia, and the US), which has a security prerogative and is aimed at

countering China's growing influence in the Indo-Pacific region. While Quad leaders met for the first time in Japan in 2022, 15 years after the forum's formation, the first I2U2 summit, albeit virtual, took place less than a year after the initiative was announced. After the virtual conference, the four countries issued a joint statement, in part saying, "This unique grouping of countries aims to harness the vibrancy of our societies and entrepreneurial spirit to tackle some of the greatest challenges confronting our world, with a particular focus on joint investments and new initiatives in water, energy, transportation, space, health, and food security."

According to statements by the US, I2U2 is meant to "revitalize and reenergize our system of alliances" across the world by cooperating on issues where the four countries are "important innovation hubs." The group chose not to let geopolitical differences subvert the scope of strategic economic and other partnerships. If it were to succumb to the pressure to take an anti-Iran or anti-China stance, it would likely derail the emerging mutually beneficial thematic cooperation among the four states.

Partnerships such as I2U2 also indicate the new role that middle powers can play in global affairs despite their strategic differences as well as vastly different regional, security, and political contexts. In the Middle East, the UAE recently sought to bridge the gulf with Iran despite fundamental differences on regional issues; India has not let its good ties with Iran affect its engagement with the other I2U2 partners; the US-China competition has tested the UAE and Israel on several issues, but they have managed to strike a delicate balance in their relationships with both superpowers.

While the format of I2U2 is innovative in itself, from a practical perspective, it is essential to see what the four countries can achieve together. The group agreed to pool resources to modernise infrastructure, expand connectivity, promote startups, advance lowcarbon industries, find new wastetreatment solutions, encourage the development of green technologies, and improve public health. The UAE committed to investing US\$2 billion to develop a series of integrated food parks in the Indian states of Gujarat and Madhya Pradesh to enhance the UAE's food security. The US Trade and Development Agency also agreed

to set up a US\$330-million hybrid renewable energy project in Gujarat. The US and Israeli private sectors will offer innovative solutions to promote the sustainability of these projects.

The group also aims to identify infrastructure future projects joint investment and development. For example, the UAE-initiated food parks aim to integrate 'climate-smart' technologies to conserve water, employ renewable energy sources (wind and solar) complemented by a battery energy storage system, and reduce food waste. Such developments would help India improve its stakes as a global supply chain hub in the food and renewable energy sectors. Meanwhile, the US proposal for a renewable energy project would help India meet its climate and energy target of 500 MW of non-fossil fuel capacity by 2030.

In addition to more traditional bilateral formats and exceedingly cumbersome multilateral cooperation frameworks that are becoming increasingly strained by geopolitics, minilateral formats are one of the ways in which governments can work together. Minilateral, or plurilateral, formats are narrower, task-oriented frameworks that can be established by small groups of

countries with overlapping interests to address specific problems. During a recent fireside chat at the Anwar Gargash Diplomatic Academy (AGDA), India's External Affairs Minister S. Jaishankar emphasised that the I2U2-like minilateral "form of diplomacy is here to stay, and it is the way forward for many" countries.³

The UAE signed the has Comprehensive groundbreaking Economic Partnership Agreements (CEPA) with India and Israel, and it may be possible to envisage the conversion of such bilateral arrangements to trilateral or even broader cooperation frameworks. Such a move could strengthen I2U2 in the future. This group could also forge similar partnerships with other countries, including Japan, Singapore, and South Korea.

The strength of minilateralism lies not in pursuing a collective security agenda as national security issues will often remain intractable—but in identifying avenues for mutually and globally beneficial cooperation in tackling climate change, health, food security, and other challenges. Developments associated with I2U2 point to the fact that middle powers are increasingly exercising their strategic autonomy. Working together to develop the blue economy-which also fits well with the green agenda, which combines issues such as carbon neutrality, green energy, and energy security—using Artificial Intelligence solutions could constitute the next stage of development.

I2U2 will succeed only if it acts as a forerunner for the future in issue-based cooperation for global good and does not remain a prisoner of past constraints.

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Looking Ahead for I2U2

Ahmed Ali Sayegh

ince its establishment in 1971, the United Arab Emirates (UAE) has served as a bridge between regions and peoples as a promoter of stability and an advocate for development and prosperity. It is with these foundational elements in mind that, in July 2022, the UAE committed to become a member of the I2U2 Initiative with key strategic partners, India, the United States, and Israel.

I2U2 is an economic grouping that focuses on cooperation through joint investments in a range of strategic sectors. I2U2's primary aim is to mobilise private sector capital and expertise in the UAE, India, Israel, and the US to help modernise infrastructure, decarbonise industries, enhance public health, and promote the development of green technologies.¹

I2U2 can be a qualitative and quantitative game-changer for the UAE, enhancing the region's bilateral ties with India, Israel, and the US. It also provides further impetus to the UAE's already significant engagement with its preeminent economic partner,

India, and comes on the heels of the Comprehensive Economic Partnership Agreement (CEPA), which was signed into force between the two countries on 1 May 2022. The UAE has high expectations that I2U2, coupled with CEPA, will further unlock new opportunities for mutually beneficial engagements between the UAE and Indian companies in what is one of the most significant bilateral economic partnerships in the Indian Ocean and West Asian regions.

I2U2 also builds upon the rapidly growing relationship between the UAE and Israel. In the two years since the historic Abraham Accords were signed, the UAE and Israel have not only signed a CEPA, but have also rapidly developed a close trading relationship that is expected to exceed over US\$5 billion by the end of 2023. The UAE-Israel relationship not only opens up new pathways to economic development, innovation, and prosperity, but also helps create much-needed opportunities for West Asia's youth in a number of vital sectors such as education, technology, energy, environment, culture, and tourism.2

Finally, I2U2 adds to the UAE's strong partnership with the US. For several years, the UAE has been one of the US's most important investment partners as well as the primary export market for US goods in the West Asia and North Africa regions for nearly 15 years. I2U2 highlights the important role that the UAE ascribes to the US among its constellation of international partnerships.

The UAE is confident that the I2U2 Initiative will bear the unique economic, trade, investment, financial, and technological strengths as well as the preexisting partnerships of the UAE, India, Israel, and the US. The aim is to do so in a manner that will not only directly support our domestic priorities and further integrate our economies, but also serve as a platform to support international efforts and overcome a range of developmental, technological, and sustainability challenges.

These goals are clear in the inaugural projects announced within the rubric of the I2U2 Initiative. For example, the development of fully integrated food and agricultural parks in India—a project led by ADQ, a UAE-based holding company, and supported

by Indian, Israeli, and US private and public sector partners—will aim to not only improve regional food security outcomes but also serve as a centrepiece and model for the development and advancement of new agricultural technologies and climate change mitigation strategies. Progress has been made on this project, with ADQ engaging in high-level dialogue with relevant stakeholders and partners to initiate the project in the near future.

The UAE provides far beyond financing and investment support for current and future I2U2 projects. As the upcoming host of COP28 and home to both the International Renewable Energy Agency (IRENA) and Masdar, one of the world's most prominent renewable energy companies, the UAE is also committed to providing technical and other forms of support to sustainable energy projects within the framework of I2U2.

Furthermore, the UAE considers projects such as the ADQ-spearheaded food and agricultural parks to be vital opportunities to showcase the region's deep technical knowledge and further highlight our rapidly emerging status as a global technological hub.

It should be emphasised that the UAE does not consider cooperation and support for I2U2 joint financing projects to be limited to the borders of the four member countries. We believe that there is considerable potential to leverage this platform and bring the private sectors of all four countries together to pool financial resources as well as combine their knowledge and skills to support other countries and regions seeking to implement low-carbon development pathways, improve their physical connectivity, and enhance their long-term food security, amongst other future-facing objectives.

There is scope for private sector actors within I2U2 countries to use this framework for cooperation to explore opportunities to improve connectivity infrastructure in West Asia and North Africa, support initiatives that improve food security outcomes throughout the Indian Ocean region, or further unlock avenues for areater international cooperation sustainable on technologies such as green hydrogen. The UAE also does not consider I2U2 to be an exclusive club of member countries. Rather, we are open to future

prospects of expanded membership for countries that share a likeminded desire to promote sustainable economic development.

Similarly, I2U2 should not be viewed as a solely government-to-government project or as a strictly public-sector led initiative. I believe fellow I2U2 member states would agree that this initiative has been developed with the objective to encourage and support engagement between the four countries' private sectors. Throughout the process of establishing the I2U2 Initiative, the UAE's private sector has been deeply engaged and invested in ensuring its success. In this respect, our private sector entities are eager to work closely with our Indian, Israeli, and US counterparts across cuttingedge fields, with the goal of developing long-term productive and mutually beneficial ties.

Through the I2U2 Initiative, the UAE, India, Israel, and the US are bound together by our shared desire to promote positive and sustainable economic outcomes within our own countries and regions as well as around the globe. The UAE is excited about the prospects

of the initiative and is committed to supporting multilateral cooperation that promotes collaboration over competition, encourages economic and technological advancement, and builds a sustainable framework for future stability and prosperity.

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