CENTRAL BANK DIGITAL CURRENCY | RECONCEPTUALISE WAR

GEO STRATEGY

VOL 1 ISSUE 2 JUNE-JULY 2022
FOR PRIVATE CIRCULATION

A NEW PERSPECTIVE ON GEOSTRATEGY & MORE

New Vision Indo-Russia Relationship

First news portal dedicated to the
Indian Defence Industry

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EVER SHIFTING LANDSCAPE

Since the initiation of the Russian special operation against Ukraine, the world is witnessing the melting away of the structures and policies established post-cold war. The world is transitioning and no one knows what is going to happen next. From the collapse of the global supply chain to food shortages to spiral energy prices leading to collapsing economies and governments, things are happening real quick.

India's neighbourhood is hit real hard. Common people to people in power are equally clueless as the repercussions of the global events are ripping through vulnerable import economies with negative trade balances and huge energy bills. The rising dollar and escalating energy prices have sent the trade balance for a six. There are no quick remedies for small economies when dollar price decides their fate.

The world needs a new global economic structure and a new set of equations to bring balance to the global system. The US-led West-dominated financial-economic system (dollar dominant) has exceeded its utility. The world needs a new partnership to balance western dominance.

In this edition, we explore ideas like 'Central Bank-digital Currency' by Sarath Sharma, an idea whose time has come. The world needs a new currency system and new technologies must be explored to find an answer to the current problem.

The ongoing conflict in Ukraine has made military thinkers revisit the concepts and doctrine of war. Brig Narender Kumar makes an intellectual effort towards this end.

Finally, in this edition, we look at the Russia-India relationship as the two nations move forward in the future through this transition period. Indian stand on the current geopolitical situation has been questioned by the west and India has stood firm on its stand. Not compromising on its national interest. Our cover story envisions how assertive India and Russia who share a 'special and privileged strategic partnership' can transform their relationship for a better tomorrow for themselves and the world. ■

Hope this edition is a good read.

ROHIT SRIVASTAVA
Editor, **GeoStrategy**

Disclaimer: The opinions expressed within the content are solely the author's and do not reflect the opinions and beliefs of the magazine or its affiliates.

inside

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GEOSTRATEGY

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INTERCEPTING ROCKET ARTILLERY – NEW FACET OF WAR

by **ROHIT SRIVASTAVA**

The ongoing Russo-Ukraine war has many firsts, one of them being the interception of rocket artillery by air defence systems. In the beginning of the war the world witnessed effectiveness of the unmanned aerial systems (UAS) against land targets and how effectively armoured can be neutralized by them. Military analyst across the globe predicted Russia meeting similar fate as Armenia. But the Russian air defence corps has learned the right lessons from Armenia war and is able to effectively neutralize enemy's UAS.'

As the war progressed and entered into the pitched land battle where artillery, especially the long-range rocket systems, was dominating the battle field, Russia begun to claim to intercept the Ukrainian artillery rockets.

According to Russian government data of June 27-July 24, air defence forces have intercepted 186 rocket projectiles fired

Viking Buk-M3

Buk-M2E is a medium-range SAM system designed to engage strategic and tactical aircraft, helicopters, cruise missiles and other aerodynamic aerial vehicles throughout their whole altitude envelope.
This is ideal for providing air defence for troops (military installations) in various types of military operations, administrative and industrial facilities and territories of the country.

Viking is capable of hitting aerodynamic targets, tactical ballistic missiles and ground (surface) radio-contrast objects. The system is capable of autonomous use of self-propelled firing systems.

"Viking" medium-range ADMS is designed for air defense of military facilities and troops in the theatre against massive air strikes of prospective means of air attack in contested electronic and fire-intensive environment.

The system provides for engagement of the aircraft with radar cross-section area of 2 sq. m:

on slant range up to 65 km
on altitude up to 25 km
The slant range against tactical ballistic missiles up to 25 km
Range against cruise missiles up to 20 km
Helicopter / hovering targets engagement range up to 60/12 km

(Source: Manufacturer)

What is HIMARS

The M142 High Mobility Artillery Rocket System (HIMARS) is a full-spectrum, combat-proven, all-weather, 24/7, lethal and responsive, wheeled precision strike weapons system. HIMARS is a C-130 air transportable wheeled launcher mounted on a 5-ton Family of Medium Tactical Vehicles XM1140A1 truck chassis organic/assigned to Field Artillery Brigades. The current HIMARS includes an increased crew protection armored cab. HIMARS supports an expeditionary, lethal, survivable and tactically mobile force. It will launch all Multiple Launch Rocket System (MLRS) Family of Munitions rockets and missiles. The HIMARS carries one launch pod containing either six Guided MLRS (GMLRS)/MLRS rockets or one Army Tactical Missile System (ATACMS) missile.

HIMARS is designed to support joint early and forced entry expeditionary operations with high-volume destructive, suppressive and counter-battery fires. When firing GMLRS-Unitary precision rockets, HIMARS can achieve ranges of 70-plus kilometers, attacking the target with low-collateral damage, enabling danger-close fires (within 200 meters) in support of friendly troops in contact, as well as engaging high- valued point targets in open, urban and complex environments. Development efforts include establishing a Common Fire Control System between the HIMARS and MLRS launchers. The Army fleet expansion effort plans to increase the HIMARS fleet.

BENEFIT TO THE SOLDIER

The HIMARS launcher provides 24-hour, all-weather, lethal, close- and long-range precision rocket and missile fire support for joint forces, early-entry expeditionary forces, contingency forces and field artillery brigades supporting Brigade Combat Teams. HIMARS is rapidly deployable by C-130, quickly enhancing combat effectiveness.

SPECIFICATIONS

Empty weight: 29,800 pounds
Combat loaded weight: 35,800 pounds
Max speed: 94 km per hour
Max cruising range: 483 km
Ordnance options: All current and future MLRS rockets and ATACMS missiles

PROGRAM STATUS

3QFY17: 16 HIMARS to Europe (European Deterrence Initiative)
3QFY18: Contract award for 24 HIMARS

PROJECTED ACTIVITIES

4QFY19: Contract award for 27 HIMARS
4QFY21: Common Fire Control System Production
2QFY22: Contract award for 13 HIMARS

(Source: US Military)

by Ukrainian multi-rocket launching systems (MRLS). This also includes HIGH Mobility Artillery Rocket System (HIMAR) projectiles. The first reporting of HIMARS interception is in the areas of Novonikolayevka and Alekseyevka on July 24. Till July US has delivered 16 HIMARS systems.

Besides, Rockets, Russian air defence has also intercepted 42 Tochka U tactical missile of Ukraine.

According Russian media reports, Buk-M3 (Export version 'Viking') is being credited for HIMARS interception. Quoting army officers, in know of the incident, Russian media claims that the HIMARS projectile are difficult target for interception as the rockets with short range, small radar signature, fly high and fast which make them difficult to intercept. In spite of limitations, Russian air defence has worked out method to intercept.

It was publically not known before that Buk-M3 system can intercept rockets.

The US made HIMARS was expected to tilt the balance in Ukraine's favour as the systems were expected to provide precision deep strike capability. In the long-range artillery war of attrition, the fire and scoot HIMARS MRLS was the weapon of choice for Ukraine to effectively neutralize Russian artillery weapons, command centers and entrenched troops. With all its specification, HIMARS have failed to change the course of war.

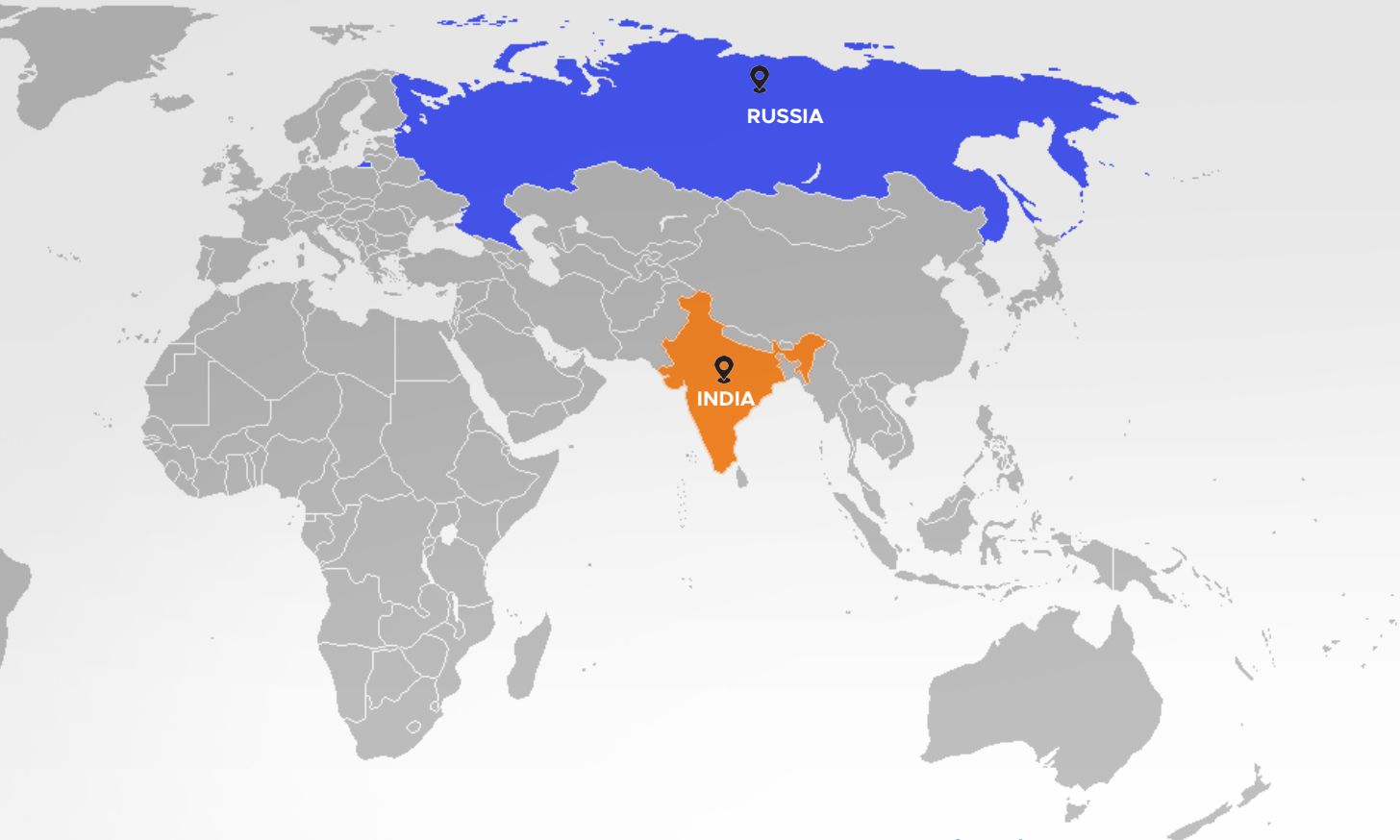
The possibility of neutralizing long-range rocket artillery with effectiveness has serious implications on the battle-field. Let's look at the Kargil War (1999) where Indian army used rocket artillery – Grad-21 and Pinaka - with ease against the entrenched Pakistani soldiers. In future, if a similar situation arises and Pakistan has the ability to intercept even a fraction of artillery rockets, this will seriously diminish the effectiveness of Indian firepower. The same hold true for India.

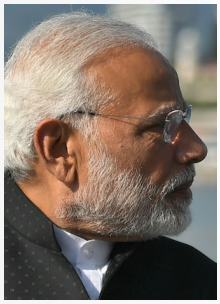
Till now, the world has been preparing for anti-ballistic missile but it is time major nation starts to gear up for anti-MRLS defence system. The case in point is Iron Dome of Israel. ■

NEEDS NEW VISION

Indo-Russian strategic relation is a unique relationship among the comity of nations. The concerted efforts of the west, since February, to convince, cajole, and coax India to take a firm stand against Russia is an attestation of the fact that India and Russia together is a game-changing partnership.

by **ROHIT SRIVASTAVA**



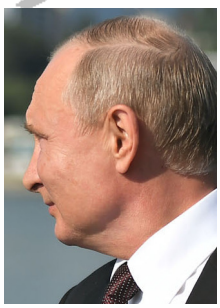


"There have been many fundamental changes at the global level in the last several decades. A lot of geo-political equations have emerged. But India-Russia friendship has been a constant among all these variables"

— PM MODI

"Russia views India as a major power, whose people have been very friendly to us. Our relations proceed from a very positive foundation. They are developing and forward-looking"

— PRESIDENT PUTIN



The Russia-Ukraine conflict has redefined geopolitics. As expected the NATO, European Union and western allies – South Korea, Japan and other minor nations spread across the globe – had a unified stand against Russia. Three decades after the fall of the Soviet Union, the global focus had shifted back to European affairs.

Unexpectedly, very soon, India-Russia relations became the focus of the global media. Their onslaught was startling for India. The Indian response to them was even more unexpected.

In one of the famous (now infamous) conferences in Europe, one journalist asked visiting India foreign minister S Jaishankar, how can we trust India? His response "Europe has to get out of the mindset that Europe's problems are the world's problems, but the world's problems are not Europe's problems."

This became the defining statement for the Indian perspective on the Russia-Ukraine war. Responding to the allegation of India funding the Russia through oil purchases, Jaishankar pointed out that Indian import is less than what Europe buys in a week.

It appears the focus is the amount of money flowing into Russia from India, but one cannot expect western analysts to be so naïve as to ignore the comparative volume of energy purchases by Europe.

Energy import was just an excuse, the target was India-Russia relations. The recent development in India's relationship with the West (US-EU) was being read as India moving away from Russia. The firmness of the Indian stand came as a shock. West understands geopolitics better than India. They have been dominating the world for the last three centuries and they realise how a resurgent Russia and India can topple the existing world order.

The world is envisaging challenges in near future and all the major powers would like to come out stronger through them which require finding new allies and cooperation among the present allies.

The most important of all the challenges is a shift of the global economy to Asia after three centuries. The world is witnessing the rise of India, China, and ASEAN countries and simultaneously, West Asia preparing for a post-petro-dollar economy with each country in the region forming a new partnership with countries in its extended neighbourhood.

This is giving birth to regional and sub-regional multilateral partnerships like Quad and I2U2. From 1950-2020, one can arguably say, the world was West looking, now, countries are looking around.

From this perspective, Eurasia is witnessing multilayered integration with the rise of regional powers dominating these partnerships. China, Russia, India and Iran are four major nations at the periphery of Eurasia and none of them is fully on the western side.

GEOLOCATION OF INDIA – RUSSIA

Geopolitics is primarily defined by geography. One needs to look at the world map to see the significance of the location of India and Russia in the Eurasia land mass. India dominates Indian Ocean Region and Russia dominates a vast area stretching from the Asian Pacific Coast to Europe. Russia is primarily a land power and India is neither a land power, all thanks to the partition of India and Pakistan's control of North Kashmir with the tacit support of the West, nor a maritime power. But India has the geographical position to dominate the whole of the Indian Ocean Region provided India

India-Russia Summit 2021

After the disruption of annual India –Russia Summit due to the pandemic, on December 6, Russian President Vladimir Putin came on a working visit to India. The summit also witnessed the first India-Russia 2+2 meeting.

Speaking on the occasion Indian Prime Minister Narendra Modi said, "The year 2021 is of prime importance for our bilateral relations in many ways. This year marks five decades of the 1971 Treaty of Peace, Friendship and Cooperation and two decades of our Strategic Partnership. It is my pleasure to be with you again in this special year because you have been the main driver of the remarkable progress our Strategic Partnership has made over the past 20 years."

Calling the India-Russia friendship a constant among changes that the geopolitics has witnessed during the last several decades, Modi said, "Both the countries have not only cooperated with each other without any hesitation but have also taken special care of each other's sensitivities. It is truly a unique and reliable model of inter-state friendship."

Reflecting the same emotions, the Russian president said "Russia views India as a major power, whose people have been very friendly to us. Our relations proceed from a very positive foundation. They are developing and forward-looking."

Discussing bilateral trade, the Indian prime minister said that the two nations have a long-term vision for deepening economic relationships. "We have set a target of $30 billion in trade and $50 billion in investment by 2025. We must guide our business communities to reach these goals," he added.

Discussing bilateral trade, President Putin said, "In 2020, trade between our countries decreased by more than 17 per cent, but in the first nine months of 2021 it grew by over 38 per cent."

The two nations have a mutual investment of US$38 billion with a slight tilt towards Russia. "We have been working together in very important and promising areas, including energy, high technology, and space."

"Our agreements today in various sectors will facilitate it further. Our defence cooperation is being further strengthened through co-development and co-production under the 'Make in India' programme. Our cooperation in (the) Space and Civil Nuclear fields is also progressing well. We have been promoting military-technical cooperation like with no other partner of ours. Together, we develop and manufacture high-technology military products, including in India," Putin added.

is ready to push the western navies out. This is only possible if India has the economic and technological might.

The geolocation of India and Russia makes them in conflict with the West. In the last 300 years, the West has moved away from its shores to dominate the world. As the nations in the East rise and reclaim their region, they would conflict with the West led by United State.

Today, the US considers China as its main adversary and has convinced India to join them in containing China to its shores. West appears to be supportive of India's rise but is not ready to accept its assertiveness. West is ready to help India to rise as an economic and industrial power but would they not consider India as an adversary once India is sufficiently developed?

INDIA AND WEST

West wants to define the world for everyone. Be it in the domain of gender, identity, individualism, academic theories, political theories or social norms. They give a moral high stand to their ways and expect the rest to accept it. They judge nations and governments on their stand on subjective issues like gender identity and use western funded social organizations to malign nations and governments through a concerted campaign.

India has suffered substantially at the hands of Islamist Pakistan. West has always supported, and armed Pakistan to contain India. It is a fact that Pakistan was created for this very purpose. All the talks about democracy and rule of law go for a six when it comes to Pakistan.

Europe and the US have used Pakistan to ensure India never takes decisive action against Pakistan. They have used global financial institutions and technology sanctions as a stick to ensure northern Kashmir (gateway to central Asia) is not in India's control, hence, limiting India's reach to Russia and Central Asia.

Along with external agents, the West has been sabotaging India internally. Even today, they fund the majority of the anarchist organisations that oppose various development activities. Western academics lent intellectual support to all kinds of fringe elements in name of minorities and marginalised communities. Through Christian conversion and academic discourse, western powers are trying to destroy the whole civilization of India.

Energy, Fertilizer Import

India imported 7.74 lakh metric tonnes of fertilisers from Russia between April-June out of a total of 36.4 lakh metric tonnes. This is almost 20 per cent of total imports.

Russian oil imports by 4.7 times in April-May, or by more than 400,000 barrels per day (bpd), year-on-year, thanks to a price discount.

India imported 950,000 barrels per day (bpd) in June, 819,000 bpd in May from 277,000 bpd in April and 33,000 bpd a year ago. Russia is now the second biggest supplier to India, replacing Saudi Arabia, while Iraq continues to be the largest.

Taking a cue from West Asian countries, China and Russia, India, would have to ensure her civilizational values remain protected from external sabotages. As a major nation in the world, India along with Russia and China cannot accept the western interpretations of the world event.

WHY INDIA AND RUSSIA

Former Russian Prime Minister and geostrategist Yevgeniy Maksimovich Primakov proposed the concept of 'Multipolarity' where Russia, China and India act as concerted power against the US-imposed unipolarity. He also proposed opposition to NATO expansion and that Russia should be a prime player in the space created by the end of the Soviet Union.

The doctrine that he proposed called for the three eminent nations of Eurasia to come together. China has crossed the economic, industrial, technological and scientific threshold to be capable of producing products and technologies which dominate the world market. Beijing wishes to replace the US as the leading power in the world. China needs to realise, that US dominance is possible only because of its partnership with Europe and the dollar as the reserve currency of the world.

The world can never be multipolar as long as the reserve currency is the US dollar or Euro. The financial collapse of third-world countries like Sri Lanka is primarily because of the exchange rate of

List of MoUs/ Agreements Signed

The two sides signed a total of 28 agreements ranging from defence, technology, trade, and protocols for business to art and culture.

Some of the major ones were

- Roadmap for Military-Technical Cooperation from 2021-2031 (outlines the ongoing defence cooperation and future possible cooperation), MoU between Opto-electronics Factory, Dehradun and JSC Rosoboronexport, Reserve Bank of India and the Bank of Russia in the field of responding to cyber attacks
- Technology Protection due to Cooperation in the Field of Research and Use of Outer Space for Peaceful Purposes and building and operation of Launch Vehicles and Ground-based Space Infrastructure,
- Renewal of Crude Oil Supply agreement between Rosneft and Indian Oil Corporation Limited, Collaboration between IOCL and Gazpromneft for VGO Hydrocracking Technology, Catalytic Iso-dewaxing for lobs and catalyst regeneration for fixed bed catalyst,
- Science, Technology & Innovation Cooperation, Cooperation in the field of Intellectual Property, amendments to the Merchant Shipping Agreement, SAIL and Russian Company SSC FSUE on metallurgy research, Consulate General of India in the city of Vladivostok.

Bilateral Trade

Enhancing trade and economic cooperation between India and Russia is a key priority for the political leadership of both countries as is clear by the revised targets of increasing bilateral investment to US $ 50 billion and bilateral trade to US $ 30 billion by 2025.

Bilateral trade during April 2020-March 2021 was around USD 8.1 billion. Indian exports amounted USD 2.6 billion while imports from Russia amounted USD 5.48 billion. For the same period, as per Russian figures, bilateral trade amounted to USD 9.31 billion, with Indian exports amounting to USD 3.48 billion and imports amounting to USD 5.83 billion.

Russian investment in India in 2017 has reached US $ 18 billion and India's total investment in Russia so far is US $ 13 billion. The overall investment target of US $ 30 billion that was set for 2025 has been already crossed.

The cumulative Indian investments in Russia, (bulk of which is in hydrocarbons sector) was about US $ 8 billion for the period 2000-2014, while the cumulative Russian investments in India over the same period were about US $ 4 billion, mainly in automotive (KAMAZ) and telecommunications (AFK Sistema) sectors. In 2015-2017, there was a renewed emphasis on increasing the bilateral investment, especially in the hydrocarbon sector.

At present, there are 10 Working Groups (WG) and 5 Sub-Groups (SG) under IRIGC namely WGs on Agriculture, Trade and Economic Cooperation, Priority Investments, Modernisation and Industrial Cooperation, Energy & Energy efficiency, Tourism and Culture, Science and Technology, IT & Communication, Banking and Financial Matters, Pharmaceuticals. The SGs include Trade Barriers, Civil Aviation, Fertilisers, Mining and Modernisation. Meetings of all these WGs/SGs have taken place expect for Agriculture, Trade and Economic Cooperation and Trade Barriers.

Further, following new groups have been created under the next round of IRIGC- Working Group on Transport, Working Group on Urban Development, Gas Task Force under Working Group of Energy and Working Group on Railways.

India-Russia Strategic Economic Dialogue (IRSED) is another G2G mechanism co-chaired by Vice Chairman, NITI Aayog on Indian side and Minister of Economic Development of the Russian Federation. 3rd round of the IRSED was held on April 15th 2021 in a video-conferencing mode. There are six coordination committees under the IRSED in six areas– Transport, Agriculture, Digital transformation, SMEs, Trade and Banking and Tourism. **- MEA**

dollars which is difficult for smaller economies to manage.

The Indian foreign policy wonks have never been enthusiastic about the idea of a new reserve currency. The time for it has arrived and reportedly, BRICS nations are working towards it.

The World is witnessing a gradual transition from 'Unipolarity' to 'multipolarity'. Whatever has been established with force, can be replaced by force only.

For a truly 'multipolar' world, India needs to acquire military, economic, technological and scientific self-sufficiency which it cannot achieve on its own. It needs a partner with deep sharing, a partnership akin to what the US and UK share. The most suitable country given India's shared technology, trust and global challenges is Russia. To develop a deep, long-term relationship, both countries would have to overcome some serious challenges.

The western obsession with maintaining the world order and calling it to rule-based order is a self-serving proposition. The world has never been ruled by a commonly agreed rule and laws which had acceptance by every nation and state.

CHALLENGES AND VISION

During the last annual summit, India and Russia reiterated their desires for co-production, co-development and cooperative research in various fields including ten years-long military-technical cooperation. (see box)

Two countries have reiterated similar plans during their previous summits, yet many of the major plans like Medium Transport Aircraft, Fifth gen fighters etc didn't work out. Both sides have different reasons for the non-execution of projects. On the other

Kundakulam Power Plant

The Kudankulam power plant is located in Tirunelveli district of Tamil Nadu. It is a Civilian Nuclear Power Plant, built by India in collaboration with Russia. The reactors are an advanced version of Russian-developed water-water energetic reactors, VVER-1000 type reactors. The nuclear complex will have six nuclear reactors with 6000 MW of electricity production capacity.

Unit	Type	Gross MW	Construction start	Operation start
Phase I				
KKNPP-1	VVER-1000	1000	March 2002	22 October 2013
KKNPP-2	VVER-1000	1000	March 2002	15 October 2016
Phase II				
KKNPP-3	VVER-1000	1000	June 2017	March 2023
KKNPP-4	VVER-1000	1000	June 2017	November 2023
KKNPP-5	VVER-1000	1000	June 2021	December 2026 (planned)
KKNPP-6	VVER-1000	1000	June 2021	September 2027 (planned)

hand, BrahMos, a co-development project, is an astonishing success. A model worth emulating.

For a decade or so, Indian defence purchases have been guided by 'not putting all eggs in the same basket' which is absurd given the very nature of the defence business. Defence purchases require deep trust, long-term partnership and full support during conflict. Given the sanction regime of the west, using western weapons against a western ally would come with sanctions and denial of support during wars. And given the unwillingness of western suppliers to sell their latest weapons, any big-ticket purchases with such country makes no sense. Lastly, if the pie is divided among many nations then India would not be a big enough customer for anyone to command loyalty. In the last two decades, none of the global competitive tenders has worked out well. Most big-ticket purchases are through government-to-government deals.

The biggest drawback of buying from various nations is managing supplies, which comes with maintaining cordial relationships under all circumstances. This is not a good situation to be for a major nation with global aspirations.

As India is moving towards self-reliance, given the paucity of technology within the local industry, co-development with foreign partners is a must. This is where India and Russia will have to iron out the challenges. India would have to let go of indecisiveness. It must think through but once decided must commit to a project and demand a similar commitment.

Indian industry does not possess the capability to design high-tech equipment. India needs to identify areas of co-development and move with firmness and Russia also needs to understand Indian demand for co-developing and sharing of core technology.

India is not a resource-rich nation like Russia. India will never be able to enter into the club of the developed nations through self-reliance or service export. India needs to develop products which command the global market. China has reached this stage.

In the current scenario, replacing global big-wig is not possible for Indian companies. What Samsung did with Nokia is the way forward. Master the upcoming technology and capture the future global market through home-grown products.

This is where Russian expertise in cutting-edge science, engineering and technology would be of help. Indian technologists and engineers have developed quite an expertise working at India-based western companies' development centres. It's time to leverage each other's strengths.

Defence Order to Russia (Since 2018)

5 regiments of $5.43 billion S-400 long-range air defence systems, 6.1 lakh AK-203 rifles, $ 2.8 billion 464 T-90S, APFSDS ammo T-90S tanks, six Ka-31 early warning helicopters, $ 2.5 billion Four Grigorovich Class Frigates, $3billion Akula Class lease.

No Movement
21 Mig 29, 12 Su30 MKI, $1.5 billion Igla-M, 200 Ka226T helicopters

WHY RUSSIA-INDIA?

India and China are adversaries as long as China does not change its approach towards Ladakh, Himalayas and Pakistan. The two nations share over $100 billion in trade, yet, the Indian market is not big enough to discourage China from troubling India. This leaves India with two options, Russia and the West for a long-term comprehensive strategic partnership.

India cannot have a comprehensive strategic partnership with both. Over the years,India has signed so many strategic partnerships that the word has lost its meaning.

The gap between India and the West makes New Delhi a junior partner. The relationship would be similar to what Japan and South Korea share. Given its size, India may not have to surrender full strategic independence but to large extent. Do the people of India want that? Except for highly westernised urban upper middle class not many.

The situation with Russia is the same. For obvious reasons, Russia cannot have a strategic partnership with the West which leaves it with only two options – India and China. The current bilateral relationship is much tilted towards Beijing. In the long term, the situation is expected to worsen. With China eyeing Central Asia, the tension between the two is inevitable.

Finally, the world is moving away from a carbon economy and for energy exporters like Russia; it's going to be tough in future. Although the country is self-sufficient in all aspects and with global warming opening up the arctic, northern Russia could be a money

Weapons Import

Since 2010, Russia has been the source of nearly two-thirds (62%) of all Indian arms imports and India has been the largest Russian arms importer and has accounted for nearly one-third (32%) of all Russian arms exports, according to SIPRI. Between 2016 and 2020, India accounted for nearly one-quarter (23%) of Russia's total arms exports and Russia accounted for roughly half (49%) of Indian imports

India's present military arsenal is heavily stocked with Russian-made or Russian-designed equipment. The Indian Army's main battle tank force is composed predominantly of Russian T-72M1 (66%) and T-90S (30%). The Indian Navy's sole operational aircraft carrier is a refurbished Soviet-era ship, and its entire complement of fighter and ground attack aircraft are Russian-made or produced in India on license (the Navy's fighter fleet comprises 43 MiG-29K/KUBs). Four of the Navy's 10 guided-missile destroyers are Russian Kashin class, and 6 of its 17 frigates are Russian Talwar class. The Navy's 8 of the service's 14 conventional submarines are Russian-origin Kilo class. Finally, the Indian Air Force's 667-plane Fighter fleet is 71% Russian- origin (39% Su-30s, 22% MiG-21s, 9% MiG-29s). All six of the service's air tankers are Russian made Il-78s. (October 21, CRS Report)

minter. Despite such possibilities, Russia would have to export goods to replace energy export.

In this transition period, new products would replace the old products and new companies would emerge. Designing products is not just about knowing technology but also about culture. Some societies are capable of more flexible thinking which helps in developing products with global appeal. Indian may not be good at developing technologies and cutting-edge research but are good at marketing products to consumers, all thanks to exposure to western MNCs. Indian consumer goods are at par with the west.

In the last 70 years, India has missed two generations of industrialisation. India cannot afford to miss another industrial revolution (4.0). India somehow managed to catch the software bandwagon which earned a lot of dollars. It should not miss the fourth Industrial revolution and for which India and Russia can be a good partners provided they develop a long-term vision.

The Kudankulam Nuclear Power Plant (KKNPP)

In 1996, Primakov, then Foreign Minister, proposed the concept of 'Multipolarity' where Russia, China and India act as concerted power against the US-imposed unipolarity. He also proposed opposition to NATO expansion and that Russia should be a prime player in the space created by the end of the Soviet Union.

FINALLY

Global warming would open the arctic and shuffle food production centres. No one can guess with certainty how things would pan out but India and Russia must think about controlling the two oceans surrounding Eurasia. It sounds big but not as big as the idea of British Empire.

For a multipolar world, rich and powerful India and Russia are a must and a multipolar world is a must for the two nations to manage their regions of influence with dignity. No one should be able to threaten us with sanctions in future. ■

ENSURING FOOD AND ENERGY SECURITY

The world is grappling with food and energy supply challenges. India, Israel, US and UAE have come together to find a solution to them. Analyst termed it as West Asian Quad, the I2U2 could be a game changer provided the regional powerhouse don't create obstacles.

by **BUREAU**

On July 14, the four heads of the government of India, the United States, Israel and the United Arab Emirates (UAE) met virtually during the first summit meeting of the four nations I2U2. During the summit, the member nations agreed to work together to ensure food security with USD 2 billion investment.

Addressing the summit, Prime Minister Narendra Modi identified water, energy, transport, space, health and food security as areas of interest for which a future road map has been prepared.

"It is clear that the vision and agenda of "I2U2" is progressive and practical. By mobilizing the mutual strengths of our countries - Capital, Expertise and Markets - we can accelerate our agenda, and contribute significantly to the global economy," he added.

In his remarks, US President Joe Biden expressed a need for global cooperation to fight the challenges of the climate crisis, food and energy security and mitigating market volatilities.

"This meeting is just a first step, a chance to demonstrate the value of this new format for cooperation between our four nations. And I'm looking forward to staying closely connected and engaged at the leaders' level as we build out the scope of the I2U2 and work together for everyone. We can do a great deal if we stick together," the president said.

Speaking on the investment in Indian Food Park, the president believed that there is "potential to sustainably increase India's food yields in the region threefold in just five years."

"India is a major, major food producer in the world. Think of the beneficial impacts this will have on India's farmers and the people suffering from hunger and malnutrition in the region," he added further.

According to the joint statement, released post-summit, UAE will invest the sum in Indian integrated food parks across India which will employ technologies to conserve water, reduce food spoilage and employ renewable energy.

"India will provide appropriate land for the project and will facilitate farmers' integration into the food parks. U.S. and Israeli private sectors will be invited to lend their expertise and offer innovative solutions that contribute to the overall sustainability of the project. These investments will help maximize crop yields and, in turn, help tackle food insecurity in South Asia and the Middle East," the statement said.

On clean energy, the statement said that "I2U2 Group will advance a hybrid renewable energy project in India's Gujarat State consisting of 300 megawatts (MW) of wind and solar capacity complemented by a battery energy storage system. The U.S. Trade and Development Agency funded a feasibility study for the $330 million project. UAE-based companies are exploring opportunities to serve as critical knowledge and investment partners."

"Indian companies are keen to participate in this project and contribute to India's goal of achieving 500 GW of non-fossil fuel capacity by 2030. Such projects have the potential to make India a global hub for alternate supply chains in the renewable energy sector," it added.

In his address, Sheikh Mohamed Bin Zayed Al Nahyan, President UAE, "Our countries do not share a geographical border, yet they converge (inaudible) for peace, and their joint action to achieve well-being and prosperity."

"We, in the UAE, believe that equality offers the best way to achieve peace, security, and progress, especially when governments and people have the will and courage to build partnership and face challenges," he added.

Emphasising the non-philanthropic nature of the group, the host of the summit, Prime Minister of Israel Yair Lapid said, "We want to change the world for the better, but we are also creating relative advantages for our countries, for our businesses, for our science sector."

"Our goal is for the private market to be a full partner in this initiative," he added. ■

EFFORTS TO RETAIN THE GRIP – G7 SUMMIT

G7 nations are not happy with losing control over world affairs. While not inviting China but cajoling the developing nations is a testament to the shift in world power and last-ditch effort to reclaim it.

by **BUREAU**

With the focus to counter the resurgent Russia and China, the informal group of G7 nations – United States, Canada, France, Germany, Italy, Japan, and the United Kingdom – met at Schloss Elmau, Bavarian Alps, from June 26-28 under the leadership of Germany for their 48th summit meet.

The summit primarily focused on mitigating climate change, and global food and energy security, besides Ukraine. "Recognising the necessity of the transition to a 1.5°C pathway and climate neutrality at the latest by 2050," the joint statement of June 28 said.

The summit released statements on Global Food Security, Climate Club, Kremenchuck missile attack, Climate Neutrality, Ukraine, Resilient Democracy and finally Leader's Communiqué on June 28.

The Ukraine conflict, global food and energy crisis and the extreme heat wave in Europe have forced the developed world to take note of how all the three are interconnected and the world need to move forward from the oil and gas economy.

"In our pursuit to ensure that all people can realise their right to adequate food, we reaffirm our goal to lift 500 million people out of hunger and malnutrition by 2030, as resolved in the 2015 G7 Elmau commitment," joint statement on global food security said.

To achieve the goal, G7 with UN support is building Global Alliance for Food Security with the support of the World Bank. They also committed an "additional USD 4.5 billion" for the most vulnerable "amounting to a total of over USD 14 billion" as a joint commitment for the cause this year.

Speaking on climate change, the group "aim(s) to establish a Climate Club to support the effective implementation of the Paris Agreement."

The Club is expected to be based on three pillars of transparent policies to achieve climate neutrality, accelerating decarbonisation and green market product and "unlock socio-economic benefits of climate cooperation and promote just energy transition."

ON RUSSIA-UKRAINE

Reiterating their stand on Ukraine, the leaders blamed Russia for the "unprovoked war against Ukraine."

"Russia cannot remain a member in good standing of the global economic and political system as long as it flagrantly violates the international norms at the cost of others," the statement on 'Support for Ukraine' said.

"Russia cannot remain a member in good standing of the global economic and political system as long as it flagrantly violates the international norms at the cost of others," the statement on 'Support for Ukraine' said.

The leaders of the G7 recognised that UNSC is primarily responsible for international peace and security, yet reaffirmed their "strong determination to act in coordination in response to Russia's war against Ukraine."

Calling their sanctions 'effective', G7 believes their sanctions have impaired "Russia's ability to finance this war, its military-industrial complex has been sapped of critical components." Although, facts on the ground tell a different story.

RESILIENT DEMOCRACIES

For a special session on 'Resilient Democracies' G7 invites leaders of India, Argentina, Senegal, Indonesia and South Africa where they discussed global challenges. "As democracies, we seek to promote a rules-based international order, respect other states' territorial integrity and sovereignty, respect and defend the principles enshrined in the UN Charter," a statement released post-session said.

Besides fighting climate change, energy supply, and food security, the leaders vowed to fight "corruption, illicit financial flows, organised crime, cybercrimes and other illicit activities, including through enhanced beneficial ownership transparency." They also agreed to find "sustainable solutions to mounting global sovereign debt" and Debt Service Suspension Initiative for debtors in need, while continuing to explore further solutions for vulnerable countries, including Middle-Income Countries,"

As an answer to mounting pressure to give equality in the international institution to medium and emerging economies, the statement assured "Advocating free, fair, non-discriminatory, rules-based and sustainable trade, alleviating global inequalities, raising standards of living, maintaining open and resilient economies and strengthening the multilateral trading system, including by reforming the World Trade Organization (WTO)."

In the past G7 has many commitments but has failed to achieve them. One cannot deny the criticality of this session; therefore it is even more significant for the group to maintain its relevance to ensure it walks the talk. ■

AIMING TO RESTRUCTURE GLOBAL SYSTEM

As expected the last BRICS Summit focused on giving a new template for a new financial and institutional framework for the future where the emerging and developing nations have a better say.

by **BUREAU**

While addressing BRICS Business Forum, Russian President Vladimir Putin, on June 22, said that the five members together control 35 per cent and are working to create a reserve currency.

"Together with BRICS partners, we are developing reliable alternative mechanisms for international settlements. The Russian Financial Messaging System is open for connection with the banks of the BRICS countries. The Russian MIR payment system is expanding its presence," the Russian president said.

"We are exploring the possibility of creating an international reserve currency based on the basket of BRICS currencies," he added.

This statement, one day ahead of the summit, set the tone for the meeting.

Discussing the combined economic strength of the BRICS, President Putin said, "I would like to recall that our countries are home to more than 3 billion people, and together account for about a quarter of the global GDP, 20 per cent of trade and roughly 25 per cent of direct investments, while the total international reserves of the BRICS countries (as of the beginning of 2022) amount to about 35 per cent of world reserves."

During the summit, on July 23, the Russian President, pointing towards how western sanctions on Russia have crippled the global economy, said, "it is only on the basis of honest and mutually beneficial cooperation that we can look for ways out of the critical situation that has emerged in the world economy because of the ill-conceived and selfish actions of certain states, which, by using financial mechanisms, are actually shifting their own macroeconomic policy mistakes onto the rest of the world."

Expressing his support Prime Minister Narendra Modi, in his address to the summit, said, "We, the BRICS member countries, have had a very similar view of the governance of the global economy. And so our mutual cooperation can make a useful contribution to post-Covid global recovery."

"It is also a matter of happiness that the membership of our New Development Bank has also increased. There are many areas where the lives of our citizens are getting directly benefitted from our mutual cooperation. For example, establishment of vaccine R&D center, coordination among custom departments, the establishment of shared satellite constellation, mutual recognition of pharma products, etc.," the prime minister added.

Asking the world to reject the cold world mentality, President Xi Jinping said, "We need to speak out for equity and justice. We need

to encourage the international community to practice true multilateralism and uphold the international system with the UN at its core and the international order underpinned by international law."

He called for moving away from "bloc confrontation, oppose unilateral sanctions and abuse of sanctions, and reject the small circles built around hegemonism by forming one big family belonging to a community with a shared future for humanity."

The global reshuffle that the world is witnessing is a pull and push among the western and BRICS nation who want more participation from the non-western nation in the global financial and security structure. The current global economic crisis is a direct result of western sanction on Russia and many developing economies is paying price for western sanction on the other hand reserve currencies like the dollar and euro to ensure they are afloat. The world would have fared better if the dollar conversion rates were more stable viz-a-viz national currencies. The idea of floating another reserve currency may make global business transactions more stable. It would be interesting to see how the west reacts to it.

Highlights of Joint Statement

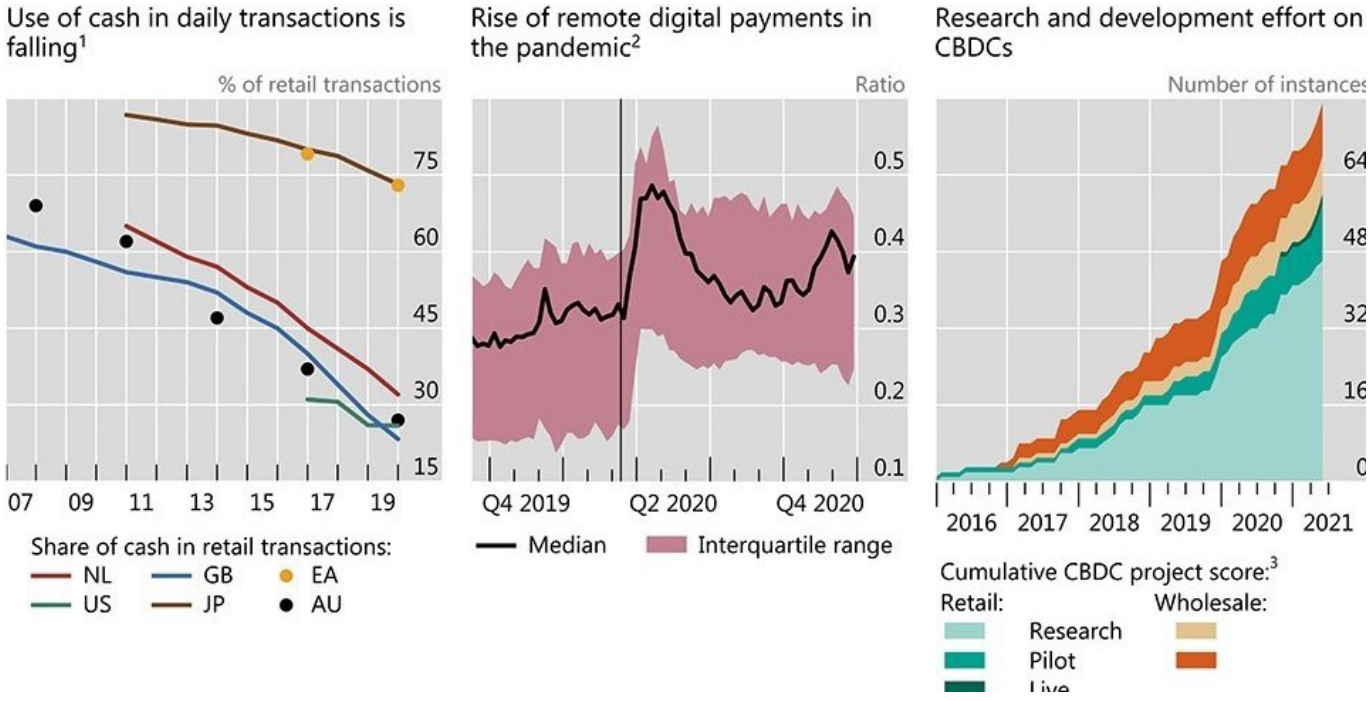
- Making instruments of global governance more inclusive, representative and participatory to facilitate greater and more meaningful participation of developing and least developed countries, especially in Africa
- Making multilateral organizations more responsive, effective, transparent, democratic, objective, action-oriented, solution-oriented and credible
- Using innovative and inclusive solutions, including digital and technological tools to promote sustainable development
- strengthening the participation of emerging markets and developing countries (EMDCs) in the international economic decision-making and norm-setting processes
- our support for G20's leading role in global economic governance
- We support talks between Russia and Ukraine. We have also discussed our concerns over the humanitarian situation in and around Ukraine
- We recognize the dynamism of the digital economy in mitigating the impact of COVID-19 and enabling global economic recovery.
- We welcome the establishment of the Digital Economy Working Group by upgrading the E-commerce Working Group
- We take note of the proposal of the Chair to establish the BRICS Trade in Services Network (BTSN)
- We welcome the decisions on admission of four new members to the NDB and look forward to further membership expansion
- We look forward to resuming technical engagements with the NDB and the BRICS Task Force on PPP and Infrastructure on the Integrated Digital Platform on infrastructure investment projects and call for intensification of work in this area.
- We commit to strengthening intra-BRICS cooperation to intensify the BRICS Partnership on New Industrial Revolution (PartNIR) and collectively create new opportunities for development.
- We encourage the BRICS Interbank Cooperation Mechanism to continue playing an important role in supporting BRICS economic and trade cooperation, and appreciate the renewal of the Memorandum of Understanding between the Member Development Banks of BRICS Interbank Cooperation Mechanism and the New Development Bank.
- As BRICS countries produce around 1/3 of the world's food, we stress our commitment to furthering agricultural cooperation and driving sustainable agricultural and rural development of BRICS countries aimed at safeguarding food security of BRICS countries and the world.
- We emphasize the BRICS efforts of extending its cooperation to other EMDCs and support further promoting the BRICS Outreach and BRICS Plus Cooperation in line with the updated Terms of Reference adopted by the BRICS Sherpas in 2021 through inclusive and equal-footed and flexible practices and initiatives. ■

CENTRAL BANK DIGITAL CURRENCY
A GAME CHANGER?

Digital uprising has shaped widespread changes in all sectors of the economy. Along with a broader movement towards more digitalisation, a trend of modernization in consumer payments has placed payments and money services at the frontline of this development, writes Sarath Sharma.

by **SARATH KUMAR SHARMA**

Graph 1: - From Bank of International Settlement



A significant by-product of the digital economy is the huge volume of individual data that is attained and processed as an input into business activity. This raises issues of consumer protection, data governance and anti-competitive practices rising from data silos.

With the digital economy on the rise here comes, Central Bank Digital Currencies or CBDC are digital tokens or electronic tokens, similar to cryptocurrency, issued by a central bank based on block-chain technology but it could also defend on scalability of the central bank. They are linked to the value of that country's cash or fiat currency. As an alternative of printing money, the central bank issues digital coins or accounts backed by the full confidence and credit of the government.

In a changing geopolitical environment national currencies are facing stiff competition from crypto currencies and petro dollar. Every emerging economy would prefer to make their currency more tradable. It may be worthwhile to have arrangement with trading partners to trade in respective currencies instead of dollar. Introduction of a CBDC will increase the control of Central Bank (issuing authority of CBDC) over the national economy and international trade. Powerful national currencies are routinely used as an instrument of foreign policy.

OBJECTIVES OF CBDC

Many new payment innovations are in vogue to basic infrastructure that is under creation for many years now. Central banks everywhere on the globe have introduced real-time gross settlement (RTGS) systems over the past years. At the time of writing, the number of jurisdictions that have created Fast retail payment systems (FPS) crossed 55 which allow immediate payment settlement between businesses and households round-the-clock. FPS also supports vibrant networks of non-bank payment service providers (PSPs) and private bank. "For Instances FPS include the Unified Payments Interface (UPI) in India, Treasury Inflation-Protected Security (TIPS) in the euro area, Cobro Digital (CoDi) in Mexico, PIX in Brazil, and the Fed-Now proposal in the United States, among many others".(M Bech, March 2020)These progresses show how modernization can thrive on the basis of sound money provided by central banks.

Demands on retail payments are shifting, with lesser cash transactions and a shift in the direction of digital payments, in particular since the start of the Covid-19 pandemic (Graph 1, left-hand and centre panels). "In addition to incremental improvements, many central banks are aggressively engaged in work on CBDCs as an advanced representation of central bank money for the digital economy." CBDCs endorse the efficiency, convenience and safety of the payment system. While CBDC developments and pilots have been under way since 2014, efforts have recently shifted into higher gear (Graph1, right-hand panel).(CBDCs: an opportunity for the monetary system, 23 June 2021)

CBDCs deliver an opportunity to analysis and reaffirm the public interest case for digital money. The financial and monetary systems are public good that circulates people's money every day and supports the economy. Technological growth in payments and money could bring extensive benefits, but the ultimate significances for the well-being of persons in society hinges on the market structure and governance arrangements that support it.

Graph 1: - From Bank of International Settlement

The main objective of CBDCs is to deliver consumers and businesses with privacy, transferability, convenience, accessibility, and financial safety. CBDCs could also reduce the maintenance of a complex monetary system needs, reduce cross-border business costs, and provide those who currently use other money transfer methods with lower-cost options.

CBDC would also decrease the risk of using digital currencies in their present form. Cryptocurrencies are extremely volatile, with their value continuously fluctuating. This instability could cause severe financial pressure in many households and affect the total stability of an economy. CBDCs, backed by a government and controlled by a central bank, would provide households, consumers, and businesses with a stable means of trading digital currency.

Already, hundreds of cryptocurrencies are present in the market. Bitcoin and Ethereum are the most well-known fully decentralized cryptocurrencies. Another type of cryptocurrency is stable-coins, whose worth is pegged to an asset or a fiat currency like the dollar euro or yen. "Cryptocurrencies run on distributed-ledger technology, meaning that multiple devices all over the world, not one central hub, are constantly verifying the accuracy of the transaction."(Ananya Kumar, 2022) But this is different from a central bank issuing a digital currency as the ledger for CBDCs will be maintained by central, private, public banks and some major financial institution across the globe.

TYPES OF CBDCS

There are two kinds of CBDCs, retail and wholesale. Wholesale CBDCs are primarily used by financial institutions. Retail CBDCs are used by businesses and consumers, much like physical forms of currency.

WHOLESALE CBDCS

Wholesale CBDCs are equivalent to holding assets in a central bank. The central bank allows an institute to hold an account to use to settle inter-bank transfers or deposit funds. Central banks can then use financial and monetary policy tools such as interest on reserve balances to influence lending or reserve requirements and set interest rates.

Wholesale CBDCs are used for the settlement of inter-bank transfers and related wholesale transactions. They aid the same purpose as assets held at the central bank but with extra functionality, for instances the conditionality of payments, whereby

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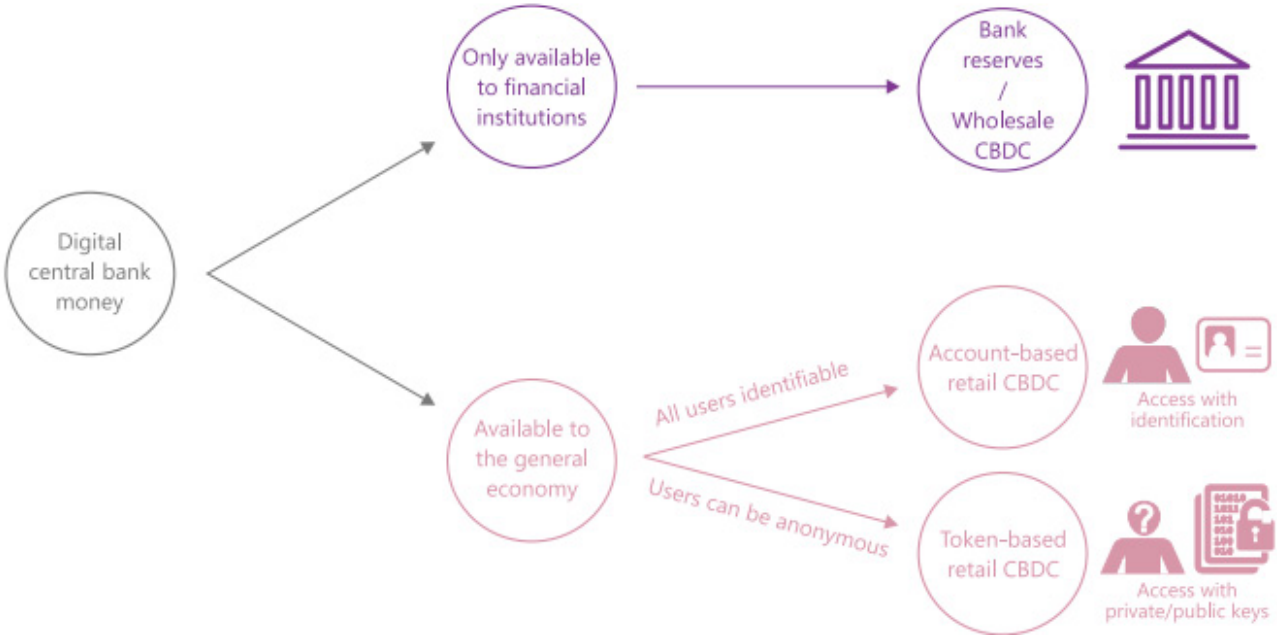


SOURCE: BIS elaboration

Figure 1: - Forms of digital central bank money

a payment only settles if certain conditions are met. (Figure 2)This could include a wide-ranging variation of conditional payment directives, and delivery-versus-payment mechanism in real-time gross settlement (RTGS) systems. In conclusion, wholesale CBDCs could make central bank money programmable, to support computerization and mitigate risks.(R Auer R. B., March 2020) Additional, wholesale CBDCs would be applied on new technology lots. "This clean-slate method would let wholesale CBDC systems be designed with global standards in mind to sustain interoperability". (R Auer P. H., March 2021)(Figure 2)

Figure 2: - The money flower a taxonomy of money Sources: Bank for international Settlements

With the digital economy on the rise here comes, Central Bank Digital Currencies or CBDC are digital tokens or electronic tokens, similar to cryptocurrency, issued by a central bank based on block-chain technology but it could also defend on scalability of the central bank. They are linked to the value of that country's cash or fiat currency. As an alternative to printing money, the central bank issues digital coins or accounts backed by the full confidence and credit of the government.

RETAIL CBDC

Retail CBDCs are government-backed digital token or currencies used by businesses and consumers. Retail CBDCs eradicate intermediate risk—the risk that private digital currency issuers might become bankrupt and lose buyers' assets.

There are two types of retail CBDCs. They differ in how individual users access and use their currency:

- Digital token-based retail CBDCs are available with public and private keys. This process of authentication allows operators to execute transactions in incognito.
- Account-based retail CBDCs requires digital or electronic documentation to access an account.(Browning, 2021)

Retail CBDC would supplement, not substitute, bank and cash deposits, and it would be purely digital money. Unlike reserves, CBDCs would be available to families and businesses, allowing them to make payments using this electronic form of central bank money. CBDCs would usually be denominated in domestic currency (Dr. Vassilios G. Papavassiliou, 2021). For example, 1 of CBDC would be worth the same as a 1 coin. It is likely that CBDCs will be fully convertible to fiat money and vice versa. (Figure 3)

Figure 3: - The monetary system with retail CBDC Sources: R Auer and R Böhme Central bank digital currency Bank of International Settlements

CBDCs will be a central bank obligation as conflicting to commercial bank money, which is a claim against a commercial bank. Consumers and businesses won't need a bank account to obtain and use CBDCs. Account Holders of CBDCs would have

claims on the central bank a "direct CBDC model" and, therefore, would not have to bear credit risks as is the case with conventional deposits at commercial banks, rendering retail CBDCs risk-free digital currencies.(Mersch, 2020)

VISUALISED CHALLENGES TO ROLLOUT CBDC

There are numerous challenges, and each one needs cautious attention before a nation inaugurates a CBDC. Citizens could take out too much money from the banks to buy CBDCs, prompting a run-on bank, upsetting their ability to give and sending a shock to interest rates. This is particularly a problem for countries with unstable financial systems. CBDCs also carry operative risks, since they are susceptible to cyber-attacks and need to be made robust against them.(Restoy, 02 February 2021) Finally, CBDCs require a multiple regulatory framework including consumer protection, privacy, and anti-money laundering standards which need to be made more robust before adopting this technology.

Choice of technology used for CBDCs is critical as it should be scalable, with almost zero latency, secure and, needless to add, privacy preservative. However, if the central bank deploys a system similar to a core banking solution, the transactions will not be private and the bank would be privy to all settlements and raise privacy risks. The most rational candidate for CBDCs should be traditional multi-tier web architecture but this too has a likely downside. The required infrastructure for the CBDC will remain complex if payment and money transactions are approved out by using the same system. The central bank will have to map the technology landscape methodically and proceed cautiously with picking the correct technology for introducing CBDCs.

Finally, the regulatory architecture that countries need to start issuing a digital currency is not in place. Many nations have not yet passed the data protection law and have not set up the Data Protection Authority that would oversee the range of privacy agreement by institutions, including complaint redressal in case of violations of personal data.

Choice of technology used for CBDCs is critical as it should be scalable, with almost zero latency, secure and, needless to add, privacy preservative.

The financial data acquired on digital currency transactions will be sensitive in nature, and the government will have to carefully think through the regulatory strategy. This would require close interaction between the data protection regulators and banking, where turf battles between authorities may also become an issue. (Carstens, 05 December 2019) The mechanisms of institution would need to ensure that there is no intersection between different regulators and chart out a clear course of action in case there is a data theft or breach of digital currencies.

ROLLOUT CBDC IN INDIA

The idea of digital currency or token can be an influential step to ending the age of paper currency or fiat money and rapidly piercing towards a cashless economy. It is projected that the size of the shadow or informal economy in India is around 50 to 55 per cent. It

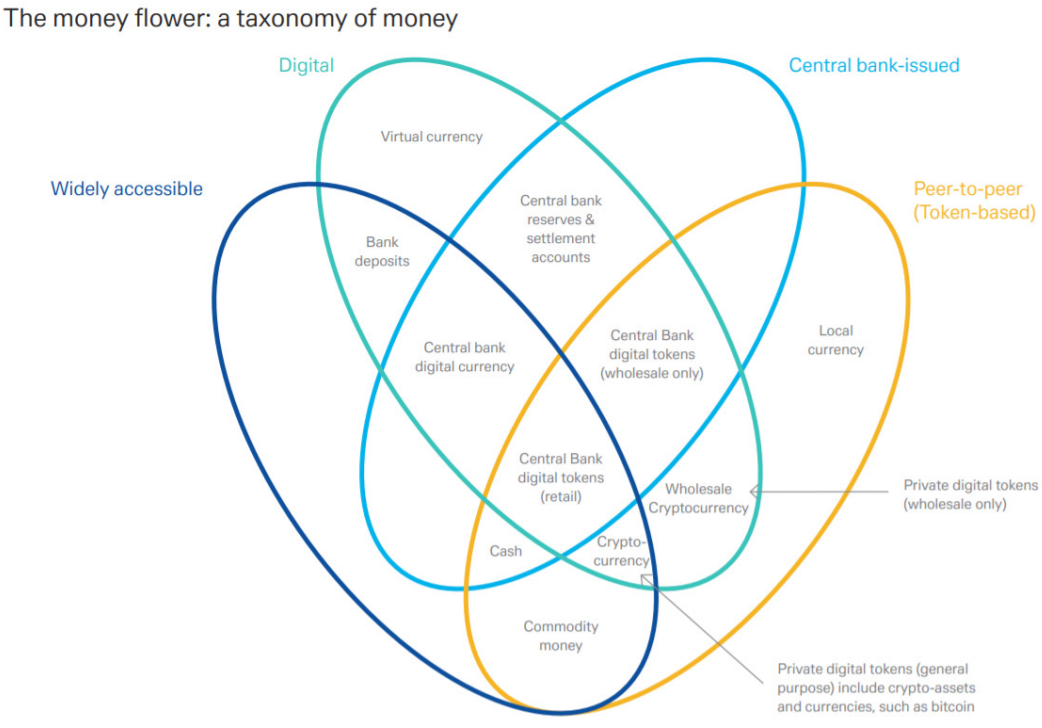
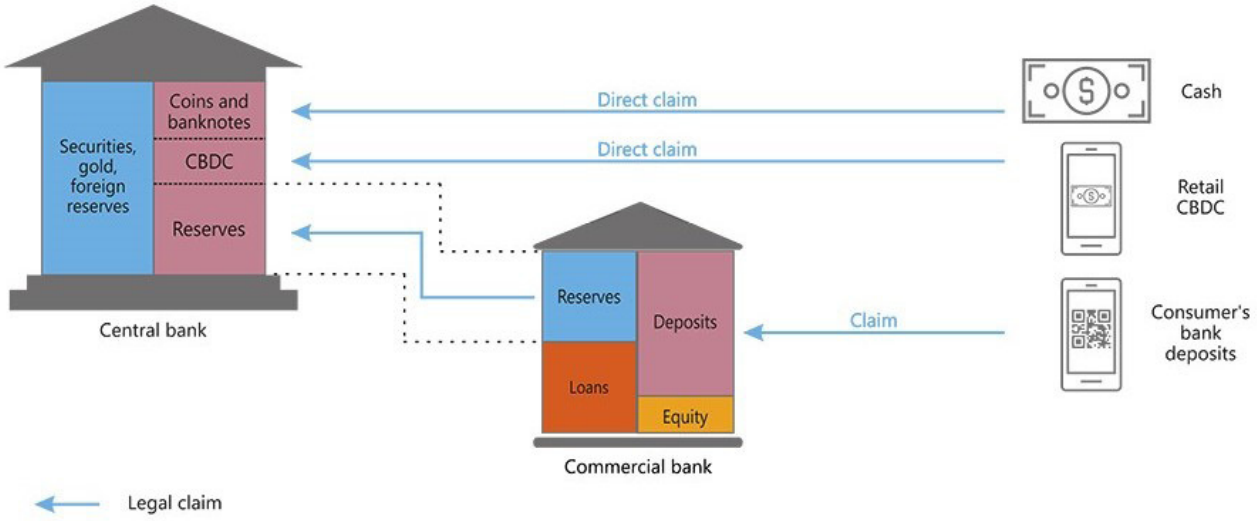


Figure 2: - The money flower a taxonomy of money

SOURCE: Bank for international Settlements

Figure 3: - The monetary system with retail CBDC



SOURCE: R Auer and R Böhme Central bank digital currency Bank of International Settlements

makes it complex to account for economic activities or unreported illegal activities. Thus, a change from paper or fiat currency to CBDC is one of the ways to ratify the Indian economy and make it well-organized and transparent. Additionally, it can lead India to reduce crime and flight of money to safe havens. It will become easy for the government to detect money laundering, black money and illegal transaction of money for terrorism and narcotics. Entire loop of circulation can be traced back and that may reduce leakage of money from development projects of the government even.

By means of digital money as an alternative of cash pitched up in India during COVID time, not just for cleanliness reasons but also for rapidity by which digital or electronic payment services permit a transaction to occur. There are many facilities existing either by financial institutions or other facility providers that enable quick transfer from one account to another account, but payment needs to jump from one account to another account which may get overdue. Another issue is the settlement of ledgers between banks and the RBI, which makes this process a difficult one. While the use of ledger or record or block-chain technology in CBDC will resolve these issues.

Demands on retail payments are shifting, with lesser cash transactions and a shift in the direction of digital payments, in particular since the start of the Covid-19 pandemic .In addition to incremental improvements, many central banks are aggressively engaged in work on CBDCs as an advanced representation of central bank money for the digital economy.

Besides, India already has a quite efficient, around low-cost electronic payment infrastructure the United payment interface (UPI). UPI was developed by National Payment Corporation of India (NPCI) it is a real time payment system a non-profit technology operating under the Reserve Bank of India and Indian bank associations. Best point, about UPI is that it instantly transfers funds between retail bank accounts on a mobile platform (smartphone) at a small cost. In its history, UPI has hosted somewhat 70 billion transactions, some are small as one rupee making it the world largest real time payment system by transactions.(Barry Eichengreen, May 2022)

UPI is also linked with multiple banks third party e-money companies that have introduced UPI enabled mobile payment apps also prepaid instrument smart card with magnetic strips which can balance preloaded money are also linked with UPI. NPCI is also testing a voice command-based version for smartphone users that will work without an Internet connection using over the air programming. It might be argued that NPCI want to launch this retail transaction onto a block-chain technology with CBDC would reduce the costs and also increase the speed of transaction and eliminate the disputes between the banks and the RBI.(Barry Eichengreen, May 2022)

Retail CBDC would extensively and effectively extend the services to the unbanked people. CBDC balances could be loaded to the digital wallet on their smart phones or on their digital accounts or CBDC equivalent smart cards or bank credit cards and can also transfer from one wallet or smart card holder to another individual or merchant without the two parties having to go through the process of bank accounts. It would not add value for the individual already processing a bank account given the ubiquity and very low cost of UPI. If CBDC is issued on a wholesale basis via banks and other e-money companies under the guidelines and supervision of RBI as officials have suggested it will be the case at least initially and then it will not in fact be available for the unbanked people.(Verma, 2022)

CBDC IN GEOPOLITICS

CBDC will alter existing international financial system that has greatly benefited the United States of America and has given them global influence. Dollar is the most favoured reserve currency that provides USA with a strategic advantage over a large majority of countries, like lowering the borrowing cost to leverage the global norms and systems, sanctions against economies, enforcements on organisations and institutes to use dollar as international trade currency.

CBDCs consequently form prospects for countries wanting to encounter the status quo and possible weaknesses for countries that thrive in today's architectures and processes.(Luo, January 2022)CBDCs can help the governments to expand to other countries use of its currency beyond its geographical borders, as real time payment settlement, removes dependence on third parties such SWIFT, credit card companies or mobile e-payments app and fintech company.

Cryptocurrency and international payment methods have contained conspicuously in global discussions following the Russian-Ukraine war, which has introduced the use of hybrid tactics. It has been detected that Russia has tried to evade sanctions by utilizing cryptocurrency as a loophole. "In response, Japan, the United States, and European countries have rushed to crack down on cryptocurrency transactions by Russian users. The impact of the war is already being felt, with the fluctuation of cryptocurrency, and secondary effects including higher oil prices, impacting not only the economies of the world but the people also."(Luo, January 2022)

In an era of sanctions and fractured global polity many countries are trying to jump start a CBDC race. Ten nations have already launched CBDC. EU nations are developing a common digital euro as well as independent CBDC of their own country. It is reported that e-CNY (Chinese CBDC, Digital Yuan) is one of the most technically advance CBDC. Chinese-CNY(is set to challenge dollar and Euro).

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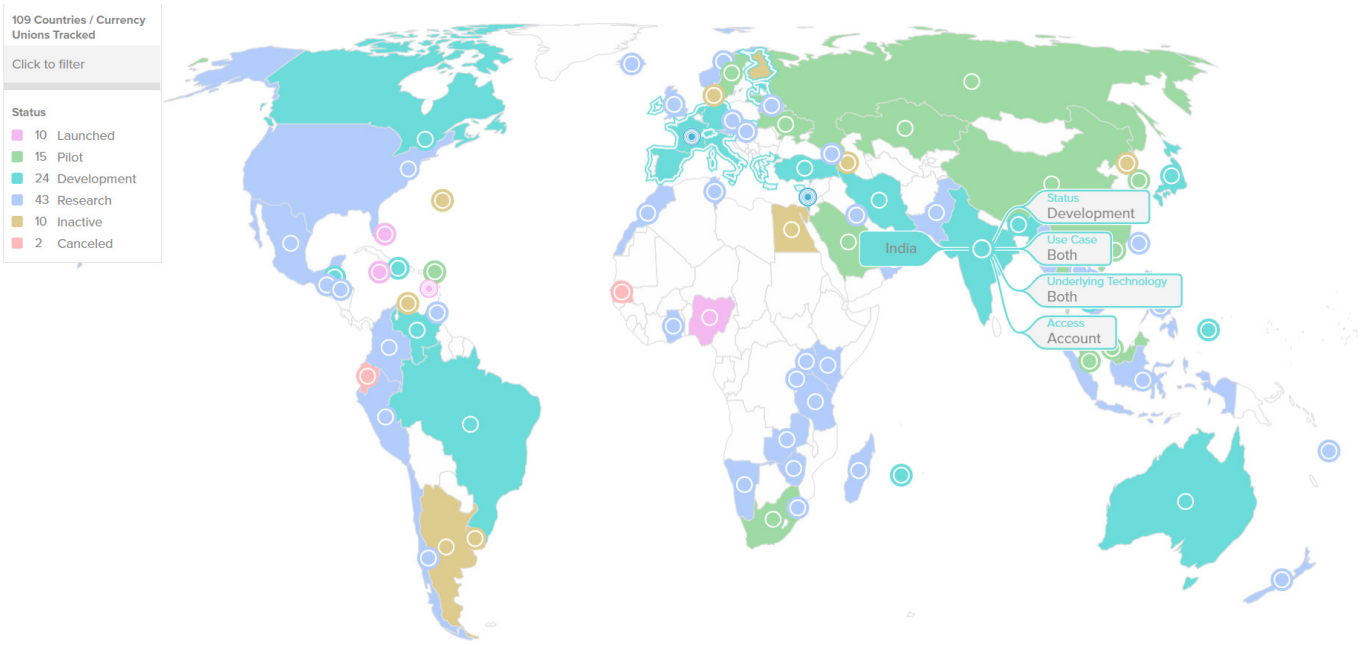
China is likely to make e-CNY as common currency for BRI linked countries for trading. (Figure 4)

Figure 4: - Currency Unions Tracked Source: Atlantic Council(Ananya Kumar, 2022)

Given the geo-political implications and its impact on public and private sectors, following needs to be streamlined: -

- Openly define global values for a CBDCs payments eco-system that defends users and guarantees financial stability and securities
- Create cross border partnership across central banks and government institution on CBDC design, and bring in other

Figure 4: - Currency Unions Tracked



SOURCE: Atlantic Council(Ananya Kumar, 2022)

countries currently not considering CBDCs

- Make clear regulations and policies that outline the role of public sector and private sector modernization in payments and e-mobile systems
- Private and public partnerships to organize, modernization and guarantee that improvements and advancement support to the central bank efforts to manage the monetary and financial system
- Promotion of historically side-lined, underserved, and unbanked communities to ensure that new payment designs promote financial inclusion(Luo, January 2022)

There are 30 sanctions list currently enforced, usually by transmission messages on the current message exchanges or RTGS systems, like the Swift FIN network, TARGET2, and Fed Wire. A CBDC could escape these enforcement mechanisms.(Barresi, july 2021)

CBDCs give central banks direct or instant access to the digital record of currency transactions. That digital record contains details such as the amount, time, source, and destination of each financial transaction.(Barry Eichengreen, May 2022)Governments and central banks must carefully contemplate questions of data privacy and security as they create their CBDCs so they can allay the vulnerability of this vast treasure trove of data. As the CBDC purchased by corporate or government institution of different countries will have to make sure they do not compromise themselves to a particular country which could compromise credibility of CBDC that can affect the national interest.

CONCLUSION

India transitioning into a cashless and $ 5 trillion economy, the present government and RBI needs to understand the working of block-chain technology and also operationalize CBDC pilot in financial year 2023. RBI and the present government must thoroughly study the advantages and disadvantages of CBDC and its impact on the traditional financial and monetary sectors of India. Launch of digital currency by RBI in the next financial year must be in alignment with the existing monetary policies and the currency structure of India. The block-chain backed CBDC should not be a disruption in the economy of India.

The timing of CBDC announcement pilot project is in line with the other BRICS's nation but more ambitious than other countries with similar per capita GDP and similar level of central bank independence.

India is not yet prepared as compared to other countries since it requires secure technology, design architecture that will oversee the operations of its CBDC. A pilot project requires an extensive explicit design architecture which can be effectively rolled out and making sure that its benefits are widespread and is reaching everybody in the economy. India requires wider smart phone penetration, specifying data privacy of the customers, know your customer rules should be specified and verifications of banks technical specifications needs to be approved and verified by the RBI and the government. (Soderberg, Feb 2022)

CBDC designs are different due to the limited time, scope, and goals due to the jurisdiction of different countries. Each country has different culture regarding monetary policies and different laws and problems. Officially launched CBDC might not be the exact open ended pilot programmes and will differ especially since an official launched CBDC will continue to be upgraded and developed over a period of time as technology changes/ upgrade.

The final point is that rolling out CBDC is not going to make fiat, stable coins and plain old Crypto currencies go away as it will co exits with CBDC for foreseeable future for the time being. The central banks around the world will accept different CBDCs over a period of time. It will be determined first on the bases of geo-political relations between the countries, technology, design architecture and availability of the CBDC in retail and wholesale. ■

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HOW THE UKRAINE WAR IS GOING EXACTLY THE WAY RUSSIA WANTED

The Russian special operation against Ukraine is in its fifth month. This conflict is changing the contours of world affairs. The ongoing military conflict has proved every expert wrong in one way or the other. Rakesh Simha is analyzing the war and how against all predictions Russia is set to achieve its objectives.

by **Rakesh Krishnan Simha**

There's only one side that will win the Ukraine War — and it isn't Ukraine. After weeks of producing fake news about impending victory, which was lapped up by the Western media and spun all around the world, the Ukrainians are finally beginning to accept the harsh truth that they cannot defeat Russia. Ukrainian casualties are currently running at a rate of somewhere between 600 and 1,000 a day, or a full brigade a week – a staggering casualty rate for a 21st-century conflict. Even the propaganda-fuelled Ukrainian leadership isn't able to hide the truth. On June 9, presidential advisor Mykhailo Podolyak admitted the country was losing up to 200 soldiers every day.

With a fighting strength of 700,000 (including 125,000 soldiers), Kyiv's forces are far from collapse. But if the current casualty rate continues for several months, it will significantly erode Ukraine's fighting strength and morale. Meanwhile, in the Donbas region bordering Russia, the Ukrainian forces are already being pushed back in a Russian artillery bombardment so intense it is likely to have a shell-shock impact on many of those who survive it.

And that's not all. A total of 6,489 Ukrainian soldiers have surrendered to the Russian forces. These include around 1,700 fighters, of whom a large number are from the neo-Nazi Azov Regiment. With these fanatic soldiers humbled and paraded like war criminals, it has had a sobering effect on the Ukrainian military and public.

While most Westerners are still cheering the Ukrainians from the sidelines, others have concluded that President Volodymyr Zelensky's game is up. Former US secretary of state and Cold War demagogue Henry Kissinger says Ukraine should accept giving up part of its territory to reach a peace deal with Moscow and end the nearly four-month-long war immediately. He emphasised Russia has been an essential part of Europe for 400 years, acting as a balancing power in critical times for the continent. Kissinger said Western countries should remember the importance of Russia in Europe and not get swept up "in the mood of the moment".

From the start of the 20th century, Russian military strategy has been a blend of the fox and the wolf. Subterfuge and diversionary tactics aren't mere adjuncts but an integral part of Russia's war fighting. Russian military deception - also known as maskirovka or "disguise" - is a military doctrine that covers a broad range of measures, including camouflage, denial and deception.

MILITARY DECEPTION: RUSSIAN ART OF WAR

From the start of the 20th century, Russian military strategy has been a blend of the fox and the wolf. Subterfuge and diversionary tactics aren't mere adjuncts but an integral part of Russia's war fighting. Russian military deception - also known as maskirovka or "disguise" - is a military doctrine that covers a broad range of measures, including camouflage, denial and deception.

Deceptive measures include concealment, imitation with decoys and dummies, manoeuvres intended to deceive, denial and disinformation. The 1944 Soviet Military Encyclopedia refers to maskirovka as the "means of securing combat operations and the daily activities of forces; a complexity of measures directed to mislead the enemy regarding the presence and disposition of forces". Later versions of the doctrine also include strategic, political and diplomatic means including manipulation of "the facts", situations, and perceptions to affect the media and opinion around the world, to achieve or facilitate tactical, strategic, national and international goals.

A classic example of maskirovka is the Battle of Stalingrad. During World War II, the Russians tied down the bulk of the German Army in Stalingrad, which swallowed up the cream of the German Army (892,000 soldiers killed in that battle alone). The Germans - and the rest of the world including most Russians - were led to believe by the high command in Moscow that Stalingrad was of vital importance to the Russians, when in reality it was a trap.

The Germans took the bait and poured their best fighting units into the cauldron, losing 20,000 men a day. While the German attention was focused on Stalingrad, the Russians were secretly preparing for a powerful counteroffensive from the east of the Ural Mountains where they had transferred their industries and population. The counteroffensive, named Operation Uranus, involving more than one million soldiers, 1,000 tanks, 14,000 guns and 1,400 aircraft, caught the Germans completely by surprise. From that point on, the Germans lost every battle against the Russians.

OPERATION UKRAINE

Russian military deception was in play from the outset of the Ukraine War. When the Russian Army started its multi-axis invasion on February 24, they entered Ukraine on three fronts: from Belarus in the north (towards Kyiv), from the east of Ukraine (towards the Russian majority Donbas region), and Crimea in the south.

Initially, it appeared to most analysts that Moscow was poised to deliver a decapitating strike on Ukraine and erase its troublesome existence from the face of the earth. As Russian tanks closed in on Kyiv from the north and south, and several kilometres long Russian Army convoy was spotted photographed waiting to cross into Ukraine from Belarus, a takeover of Kyiv seemed likely by the second day of the invasion. Many Westerners were salivating - without any real hope of course - at the prospect of attacking this column of approximately 20,000 troops.

However, the thrust towards Kyiv was a feint aimed at drawing the bulk of the Ukrainian Army west to defend their capital. This allowed the Russian troops to burst into the city of Mariupol (which was their primary target) and Kherson, their secondary objective. The capture of these cities was the entire point of the invasion as controlling Mariupol gives Russia command of a land route linking the Crimean Peninsula with mainland Russia and parts of eastern Ukraine held by pro-Russia separatists.

It is worth mentioning that all these areas that the Russians are taking - with much loss of life and resources - once belonged to Russia. These areas, especially in the east and south were attached to Ukraine by the communist leader Lenin in the 1920s in a bid to artificially enlarge the country. This is a classic example of how misguided generosity can boomerang. Indians who showed

Battle for Donbas

On February 21, just three days before launching his military action, Russian President Vladimir Putin said, "Ukraine is not a separate country. Ukrainians and Russians were brethren, the same." Kyiv, in his view, had been separated from Russia when the Soviet Union dissolved. While Ukrainian neutrality is important to Russia, Putin is not aiming to re-integrate the entire country. Moscow's strategic objectives will be met by linking up the Crimean Peninsula with the eastern oblasts (administrative regions) of Lugansk and Donetsk which have Russian-speaking populations.

By re-integrating Crimea in 2014, Russia had not only conquered the former home port of Russia's Black Sea Fleet but also gained a port that is ice-free all year round near its European part for the first time since the collapse of the Soviet Union.

However, for now, Crimea is still an exclave. It is only connected to the Russian mainland via a bridge over the Kerch Strait that opened in 2018. By conquering all of Donbas, Russia gains Mariupol's port access with links to Crimea and the Mediterranean. Russian officials have stated their main objective of the war is the complete liberation of Lugansk and Donetsk. But it is highly likely that the wider Donbas region, an industrialised area rich in coal reserves, will be annexed by Russia.

The armed conflict in the Donbas region started in 2014. Fierce battles in 2014-15 ended with one-third of the region's territory, its most urbanised part, occupied by pro-Russian local governments. The fighting transformed into a trench war, with roughly 75,000 troops facing off along a 420 km long front line cutting through densely populated areas.

After eight years of trench warfare - reminiscent of World War I - the gods of war have turned against the Ukrainians. Officials in Ukraine admit Russia has the upper hand in the Donbas as Ukrainian forces have lost several key outposts. Currently, just 5 per cent of the region is in Ukrainian hands, with Ukrainian soldiers retreating in most areas.

Unable to recapture territory, Ukraine has responded by shelling schools, kindergartens, local markets during busy hours, buses and public areas in cities and villages in the Donbas. This ill-advised bombardment using ballistic missiles has permanently alienated the local population. There is no going back to Ukraine for the Donbas.
**All data are latest by the mid of June.*

magnanimity after defeating Pakistan in four successive wars - and were rapid with a Thousand Cuts - would understand.

BATTLE FOR AZOVSTAL

One of the key events of the war was the battle for the Azovstal Steel Plant in Mariupol in which around 3,000 Ukrainian soldiers of the Neonazi Azov Battalion and Western mercenaries were holed up. Heavily armed and equipped, these fighters were prepared to dig in for a long fight. Also, don't forget that had the Russians not made the feint armoured thrust in the direction of Kyiv, they would have had to deal with twice that number.

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With the enemy trapped inside, it was expected that the Russian would resort to a massive air raid to use their powerful 'vacuum' bomb to wipe out this rare concentration of several thousand troops in one small area. This would have been like the Indian Air Force waiting patiently - and resisting the temptation to attack - while the Pakistan Army poured hundreds of Northern Light Infantry troops into Skardu. The IAF struck only after the enemy troop strength reached a critical number, resulting in the deaths of at least 2,400 Pakistani soldiers in just three hours of heaving and relentless bombing.

However, nothing like that happened. The Russians attacked using long-range and standoff weapons but not to the scale most analysts were predicting. American 'experts' even predicted that President Vladimir Putin would unleash tactical (battlefield) nuclear weapons on the Azovstal plant. Instead, as the Russian forces tightened their noose, Ukrainians and their Western mercenary allies suffered growing casualties with zero ability for medical evacuation.

The entrapment - rather than destruction - of the Azov Battalion and the mercenaries was exactly what the Kremlin wanted the entire world to see Neonazis pouring into Ukraine from all over the world. When Mariupol finally fell and the Ukrainians and the mercenaries surrendered, the Russian Army strip-searched every fighter, revealing their Nazi patches and tattoos.

The long siege became a propaganda disaster for Ukraine - and a huge embarrassment for the US and Europe - like videos and images of these Neonazis were flashed around the world. The De Telegraaf newspaper of The Netherlands said, "the late fall of Mariupol is a boost for Moscow". According to the Moscow-based The New Times, the Kremlin made the "Azov steel works the symbol of global Nazism" to milk the issue. Since the Russian moratorium on the death penalty does not apply in Ukrainian territory under Russian control, the trials of the Azov Battalion could lead to death sentences.

FROM THE FRONTLINES

Currently, Russian forces are continuing their bombardment of frontline Ukrainian cities, waging a major offensive in Lugansk, one of the two provinces that make up the Donbas. Moscow's goal – having taken full control of the port city of Mariupol – is to seize the remaining Ukrainian-held territory in the region and gain military momentum.

In the context of Russia's war aims, the ground situation is largely favourable for Moscow. While the broader military strategy will always be unique to each theatre, the tactics employed by the Russians have ramifications globally.

STANDOFF STRIKES

Since the three-axis invasion of Ukraine began in February, the Russians have avoided going in with all guns blazing. Kyiv has been spared the crippling blows on its political command centres that the West deployed in Baghdad in 2003. Rather, the aim is to seize the southern and eastern Russian-speaking regions and bring the Ukrainians to the negotiating table. Also, there are still many Ukrainians who are pro-Russia and detest the current Neonazi leadership. A decapitation strike on Ukraine's cities will ensure a quick victory but many innocent people will die too.

On the battlefield, the Russians are using their traditional strengths in artillery to hit Ukrainians from safe standoff distances. The war in the east, where Russia is focussing its attention, is now primarily an artillery battle in which Kyiv is severely outgunned.

A highly effective Russian Army weapon is the Msta-S self-propelled howitzers, which are fast, manoeuvrable and reliable. They can fire an accurate round, and then scoot for cover, so as not to come under return fire. As soon as the coordinates of a new target appear, they can get into position again. Field reports published in Newsweek magazine say they work day and night, neutralising targets up to 30 km away, "destroying the Ukrainian forces' artillery squadrons, their command posts, weapons and military equipment".

OUTDATED BUT EFFECTIVE

According to the US-based Strategy Page, Russia is using cruise missiles launched from bombers and ships to reduce its aircraft losses. "This means the only losses are among ground attack aircraft (the Su-25), helicopters and UAVs. Russia also has lots of artillery, especially long-range guided and unguided rockets that can fire from the Russian side of the border. Many of the guided rockets are used against Ukrainian weapons storage sites or convoys/freight trains making deliveries from NATO countries. Russia still has a network of paid informers inside Ukraine who now concentrate on locating such targets."

Meanwhile, Russian bombers have been launching 1960s-era heavy, anti-ship missiles meant to destroy aircraft carriers with nuclear warheads against land targets in Ukraine. The 5.5-ton Kh-22 missiles, when used in ground attacks with conventional warheads, are highly inaccurate and can cause severe collateral damage and casualties. The use of these 'dumb' missiles gives the Russians flexibility to deploy their more precise modern missiles against more valuable targets.

The use of weapons and munitions that are well past their use-by date offers several advantages, especially in a medium-term war. One, it gives you an idea of how good your old weapons are and whether they performed nearly as well as they were pitched to be. Two, it gives confidence to the fighting forces that their defence industries are supplying them with potent weapons. Three, it gets rid of stocks that would have had to be dismantled or recycled at great cost. Four, it frees up space in weapons depots for newer stock. Indian war planners might look into this aspect of war as we have countless warehouses full of old ammunition and warhorses like the 1960s-era SA-2 air defence missiles that have been in storage for over 50s years.

DRONING ON ABOUT TURKISH DRONES

The Bayraktar TB2 is a Turkish-made strike drone with a 150 km range capability with a 50 kg payload. The 21 feet long aircraft can stay in the air for up to 24 hours and has an operating speed of 130 kph. It is furnished with an automatic take-off and landing system. Propaganda videos from Ukrainian, Western and Muslim countries have been boasting of the successes of the TB2. But what role are these drones playing in the conflict?

Wolfgang Richter, a retired colonel in the German army and a military expert at the German Institute for International and Security Affairs, told DW the Turkish drone isn't a game-changer as some are crowing. A drone can only attack one target at a time, he said. "That means it can take out tanks or artillery pieces. If the Ukrainian military did have all the drones it had ordered, it could inflict losses on the Russian side but compared to ground combat, the impact of drone warfare would be limited."

No argument there. In the initial weeks of the Ukraine War, there were several videos of the TB2 notching up - unconfirmed - kills on Russian targets, but lately, the TB2 seems to have disappeared from the skies over the battlefield. Russian Deputy Prime Minister Yury Borisov provided a hint when asked if Russian drones were capable of competing with the Bayraktar drones: "Russian developed drones don't just have the same technical capabilities as the unmanned aerial vehicles that you mentioned but outperform them."

The hype got busted in a three-day combat operation starting May 9 when the Kyiv regime lost 30 combat drones off Snake Island. Russian Defence Ministry Spokesman Major-General Igor Konashenkov said of these, nine were the Bayraktar-TB2. Not surprisingly, the news outlets celebrating the Turkish strike drones have avoided mentioning the topic ever since.

Another Russian tactic - which was highly effective in World War II - is the use of small detachments to probe Ukrainian defences. As the Ukrainians respond with counterfire, they are targeted with long-range artillery or short-range ballistic missiles. These probing attacks may be laying the groundwork for a wider push into Ukrainian-held areas in the east and south.

SMALL DETACHMENTS

Another Russian tactic - which was highly effective in World War II - is the use of small detachments to probe Ukrainian defences. As the Ukrainians respond with counterfire, they are targeted with long-range artillery or short-range ballistic missiles. These probing attacks may be laying the groundwork for a wider push into Ukrainian-held areas in the east and south. The advantage of this tactic is that it does not ring alarm bells in the Ukrainian leadership or the West, allowing the Russians to seize territory by a sort of salami slicing. This is yet another tactic that the Indian Army has inexplicably avoided against Pakistan or China despite sitting in advantageous positions versus both adversaries.

AIR FORCE - FUTURE OUTLOOK

Unlike the West which raided Iraq with unstoppable 1,000 bomber raids that levelled entire cities to rubble, the Russians have avoided that despite having the ability to do so. As mentioned earlier, this is primarily because Russians consider Ukrainians to be fellow Slavs and there is no desire to cause mass casualties.

The Kremlin has however issued dire warnings to the West - and in particular to Britain - that any supplies of long-range missiles to Ukraine will result in Russian strikes on President Volodymyr Zelensky's headquarters and other Ukrainian command centres.

Even if the Russian Air Force is being held back for political reasons, it is a pointer to the direction in which war is heading. During the 2003 Iraq War, it was the US Air Force that ensured Iraqi capitulation after just eight days of sustained bombing. However, against an enemy with outdated - but still effective - air defence missiles and anti-aircraft guns, the Russians have chosen to use their missiles and long-range artillery.

This tactic offers valuable insights on fighting an adversary with even a basic anti-access/area denial capability. For instance, the next raid against Pakistan must not involve penetrating enemy airspace with manned aircraft and risking a downed pilot. Mirages, Sukhois, Fulcrums and Rafales are better used for air defence and long-range strikes against Pakistani targets. Any punitive strikes should be done with cruise missiles from standoff distances.

Can Western Weapons Save Ukraine?

It is ironic that while millions of Americans are homeless and on the verge of starvation, the US and its Western allies want to send billions in military aid to Ukraine. Among the weapons that have been rushed into the battlefield are the Javelin anti-tank missile and the longer-range Multiple Launch Rocket System (MLRS). Over the past three months, there have also been shipments of weapons and munitions from more than 30 other nations, including the UK, much of Europe, Australia and Japan. Germany has promised to send state-of-the-art air defence systems and tracking radar.

However, Ukraine isn't Vietnam. It has failed to launch any significant successful counter-offensive, with any tactical victories limited to operations at the tactical battalion group level. In the majority of cases, the Russians have retaken lost ground. The high casualty rate of the Ukrainian defenders is a clear indicator that Western weapons cannot compensate for weakness in strategy.

But with weapons arriving from 30 different countries, there is the problem of multiplicity. Take artillery. When Germany and France shipped their guns, the Ukrainians not only had to undergo training on two different systems but also had to set up two different supply chains for parts. Then as soon as they figured that out, the Americans and British sent their weapons. Then more countries supplied their proprietary systems, thus trapping the Ukrainians in an endless loop of importing, training and logistics, leaving little time to do the actual fighting.

Worse, Russians have made special efforts to identify and target these systems. Reports of Russian forces destroying major consignments of Western arms using long-range cruise missiles are coming in almost daily.

According to the US-based Cato Institute, the four main categories of weapons the West has sent Ukraine are basic guns and ammunition, missiles, attack drones and artillery. These weapons are helping the Ukrainians remain in the fight against the much larger Russian forces. Here's a quick look at some of the Western weapons and their impact, if any, on the battle.

Artillery: According to chief Pentagon spokesman John Kirby, more than half of the 90 M-777 155mm howitzers promised by the US have arrived in Ukraine. The Australian government has promised an additional six M777s and Canada pledged four. And yet Ukraine is losing against Russia on the frontlines. "This is an artillery war now, and we are losing in terms of artillery," said Vadym Skibitsky, deputy head of Ukraine's military intelligence. The American howitzers are no match for the more potent Russian analogues.

Anti-tank: The most notable of these is the US-made Javelin. To date, Washington has provided more than 7,000 Javelins and Ukrainian troops are reportedly finding them effective against Russian tanks. Anti-tank missiles like the Javelin are easy to use, with military experts claiming it takes only 30 minutes to learn. The US is shipping more Javelins to Ukraine than it can produce, so supplies may soon dwindle. If Western media reports are to be believed, the Javelins knocked off many Russian tanks. However, what they won't tell you is that Russians adapted quickly and now stay well away from the range of these missiles, thus nullifying this weapon. Tanks are being sent in only after the area is cleared by long-range artillery.

MLRS: The Russians have used multiple-launch rocket systems (MLRS) to flatten Ukrainian defences. In response, the UK has offered the M270 system that can fire 12 surface-to-surface missiles per minute to strike targets in an 80 km radius. This follows the US decision to gift the High Mobility Artillery Rocket System (HIMARS) variant of MLRS. The UK has also declared it will supply long-range missiles. The Russians have drawn a line about long-range missiles - they will start targeting the headquarters and command centres of the Ukrainian leadership. So the US-UK decisions may result in a massive strategic bombing of Kyiv.

Air-defence: An inevitable consequence of exporting weapons is they can be used against you. At first, the Ukrainians received the Gepard anti-aircraft tank vehicles that can hit aircraft more than 16 km away. However, they proved to be practically useless against Russian helicopters which were taking a heavy toll on Ukrainian forces. So Slovenia offered the Russian-made S-300 air defence system with a range of over 200 km. While this outdated, but presumably still effective, weapon poses a threat, the reality is the Russians have proprietary knowledge of how to neutralise it. Plus, its true impact will be known only when the Russian Air Force enters the war.

Infantry mobility vehicles: 20 Bushmasters from Australia and 72 M1114s from the US have arrived in Ukraine. Although highly mobile and able to mount a variety of weapons, from automatic grenade launchers to heavy machine guns, these vehicles are lightly armoured and stand little chance of surviving a fit from a T-90 tank or even 14 mm machine gun.

Anti-ship missiles: The UK has promised hundreds of Brimstone Sea Spear missiles. Since this is a weapon still under development, it's likely the British are using the Ukrainians as guinea pigs. Reportedly the Ukrainians have sunk the Russian warship Moskva using their indigenous Neptune anti-ship missile. But the near-total absence of activity in the waters of Ukraine suggests the Ukrainian capacity to interdict at sea is limited or nonexistent. If they ever arrive in Ukraine, the Sea Spear may remain a weapon that may remain in crates.

Reconstruction in Mariupol, pic Russian MoD

Leading air forces are already reorienting given their changing mission profiles. The current thinking in the US Air Force is that its latest F-35 will be the last major manned aircraft and the future fighter will be entirely remotely flown. The tens of thousands of man-hours spent in drone warfare against Islamic terrorists in Iraq, Afghanistan and Pakistan have led the Americans to believe that the pilot can do his job sitting in Virginia instead of risking his neck over the battlefield.

Ukraine isn't Vietnam. It has failed to launch any significant successful counter-offensive, with any tactical victories limited to operations at the tactical battalion group level. In the majority of cases, the Russians have retaken lost ground. The high casualty rate of the Ukrainian defenders is a clear indicator that Western weapons cannot compensate for weakness in strategy.

ENDGAME

The high Ukrainian casualty rate is a pointer to the fanaticism of Kyiv's political elites who are sending poorly trained youth into a meat grinder. The last time this happened was during the Battle for Berlin in the closing days of World War II when Adolf Hitler and his generals sent 15-17-year-old children armed with bazookas to die against the Russian Army. This shouldn't surprise anyone since the current Ukrainian leadership comprises leaders who are ardent admirers of the Nazis.

However, any way you slice this, there is no way Ukraine can win this war. For, Russia's ability to absorb sanctions and tighten its belts is far greater than the West's ability to suffer economic losses. Moscow has endless resources to fight a drawn-out war. And as history has shown, the longer the war, the more likely Russia's adversaries will lose.

As Kissinger suggested, Ukraine and the West should throw in the towel and get back to the negotiating table. Ideally, the dividing line should be a return to the status quo ante, but if that isn't possible, Ukraine should cede territory to Russia. "Pursuing the war beyond that point would not be about the freedom of Ukraine, but a new war against Russia itself," he said.

Whether the muppets in Washington will listen - or fight Russia to the last Ukrainian - is another matter. ■

RECONCEPTUALISE WAR TO DETERMINE DOCTRINE AND FUTURE TECHNOLOGIES

The world is witnessing the maturation of new technologies, as in past, they are finding their first employment in the military. This would chaperon a new kind of warfare. Brig Narender Kumar is analysing the emerging new warfare.

by **Brig Narender Kumar(Retd)**

Pinaka, DRDO developed Multi-Barrel Rocket Launch in action

PHOTO: www.iXxxxxxxx

INTRODUCTION

Secretary of Defence Donald Rumsfeld argued that the future of warfare belonged to the Revolution in Military Affairs (RMA)—a concept in which information, speed, precision, and range could substitute for mass and firepower. [i] What he overlooked was that it is the soldier on the ground that will leverage the technology during the war to influence the outcome of the war.

Future wars would require high-end technology along with skilled human resources adapted to the employment of technology in war. The strategy and doctrine will define the usage of technology during the war and accordingly human resource needs to be trained to use technology under hostile conditions.

One must remember that the end state to be achieved in a war can rarely be predicted, especially, if the militaries turn blind eye to the technological advances made by the adversaries. The big question is how should technologies for fighting future wars be identified? Should it be doctrinal push or technological pull that should define how future wars will be fought?

Indian National Security Adviser Ajit Kumar Doval, suggests that future wars will be non-contact wars, whereas, the Ukraine-Russia war suggests otherwise where boots on the ground are as important as the element of non-contact war.

Remote control war may be a good idea to cause disruption and attrition but to achieve the politico-military objective you need technologically enabled conventional military capability. There is also a need to look at where are we as far as cutting-edge technologies are concerned? To find answers to the above questions, a reconceptualization of war to forecast future military technological needs and suitable doctrine is imperative.

FUTURE WARS – DOCTRINE AND TECHNOLOGY OVERLAP

It is important to define National Security Strategy (NSS) that will lay down national goals, timelines, and measures for achieving them. [ii] This will facilitate in defining doctrine that lays down how future wars should be fought. The doctrine would also provide broad guidelines to determine capabilities, procurements and technology development for the forces. It would also provide broad contours for restructuring military formations to leverage new technologies in war.

India has one of the largest multi-layered higher defence organisations and yet we have not enunciated NSS. Though there are declared doctrines by three wings of the armed forces, however the doctrines by three wings of armed forces are neither ratified by the Ministry of Defence nor DRDO has aligned itself to develop technologies based on the doctrine. As a result, capacity building is suffering and armed forces are not getting due benefits out of technological dividends to prepare to fight future wars.

Libya, Yemen, Syrian, Azerbaijan–Armenia and Russia-Ukraine wars have shown how future wars will be fought. The question is, are we prepared to deal with an adversary who has a technologically enabled integrated force structure that is capable of fighting a multi-domain war? Have we lagged in the development of technologies and doctrine to suit our politico-military objectives?

The problem with our capability development is that we are trying to fit acquired technologies into the existing military structure and enunciated doctrines. A case in point is that although India started the development of drones near-simultaneously with Turkey. Today we have neither high-end indigenous drone technology compared to Turkey/ China nor the Electronic Warfare System (EWS) to support drone and counter-drone operations. How drones will be integrated with combat formations is still a work in progress and the situation is further aggravated in the absence of a proper doctrine and declared the concept of operations.

It is important to define National Security Strategy (NSS) that will lay down national goals, timelines, and measures for achieving them. [ii] This will facilitate in defining doctrine that lays down how future wars should be fought. The doctrine would also provide broad guidelines to determine capabilities, procurements and technology development for the forces. It would also provide broad contours for restructuring military formations to leverage new technologies in war.

Future wars will be multi-domain where non-contact warfare and contact warfare will be practised in a synergised manner. Disabling of command and control, disruption in situational awareness and battlefield isolation by kinetic and non-kinetic means would be key in future wars.

At the same time, militaries would deploy technologies to secure communication for effective command & control, uninterrupted situational awareness, and security of its military assets on land, sea and air. Ukraine used drones and small teams to a great effect to cause huge attrition to the Russian forces in the initial stage of war where they could destroy Russian land-based assets with precision.

As the war progressed Russian counter-drone campaign reduced the attrition on land and sea-based assets. Now Russian forces enjoy considerable freedom to operate against Ukrainian forces. Modern wars have highlighted that tanks, field artillery and other ground-based military assets are most vulnerable without counter drones and effective air defence. There is now a question mark if mechanised formations are still relevant or have become obsolete in new age wars. In the light of the above facts, it is doctrine that acts as an engine to drive capability development to fight future wars.

DOCTRINE AND FUTURE TECHNOLOGIES

Military technology takes anything from 15 to 20 years before it is available for operational deployment. In normal circumstances, it takes approximately a decade from concept development to achieve initial operating capability. Thereafter, it takes another 10 or more years to develop the necessary foundational science,[iii]operational deployment and building logistics support. An important aspect is that if the technology development or gestation period is too long it may be obsolete even before it is inducted into field formations. India is in dire need to have armed and surveillance drones in its inventory along with compatible electronic warfare packages to

support drones and counter-drone operations. However, both these aspects are still unresolved.

We are still in the technology demonstration stage and Turkey which started drone development near-simultaneously with India has today become a global super power in drone technology. The question is why the R&D in India is so lethargic? The answer may be due to a lack of coordination between users and developers of technology. India cannot afford to depend on capability building on foreign countries subject to hacking, intervention and interference. Thus focusing on indigenous technology development even now may be worth an effort.

How should we move ahead to develop technological Atamnirbharta through indigenous development and domestic industry? The first step in this direction is a reconceptualization of war. Because if we continue to believe that the next war will be like the last war and can be fought by yesteryears organisations, skills and technologies, then we are certainly inviting disaster. When we say reconceptualization of war, it means defining a doctrine to fight future wars, identifying technology for each domain, and compatible organisations to leverage technology and doctrine of war. Thus there is a case for armed forces, technology developers and industry to sit together in a formal structured manner so that it becomes binding on all three to conceptualise a technology, deliver new-age systems in the given timeframe and operationalise identified technology in war scenarios.

The conceptualisation of future wars can be done once there is an understanding of recent wars and how technology has been leveraged in these wars starting from Libya to Ukraine. In the Indian context, this is the job of integrated defence headquarters along with perspective directorates of three wings of the armed forces. Thereafter, our capabilities vis-a-vis the countries in conflict should be evaluated to understand where we are and what we need to do concerning the development of military technologies and the need for structural reforms.

NEW IDEAS REQUIRED

Have we identified our requirements for future military technologies to fight new-age wars? It is an empirical study that should be carried out by professionals and technology developers to jointly identify the future military technologies that we must develop within the country. Critical areas for the development of indigenous military technologies for contact and non-contact warfare should be identified and prioritised. The arena where maximum focus by India should be military-centric information warfare, missile warfare, cyber warfare, electronic warfare, laser technologies, artificial intelligence-enabled autonomous weapon systems, drones and surveillance systems. There is a need to also look at how China is investing in modern technologies. China is spending US$233 billion per annum, in defence research and development.[iv]China has identified three technologies that matter most and all three relate to its ability to control cyberspace and EW. These are semiconductors, quantum computing and AI.[v]

The conceptualisation of future wars can be done once there is an understanding of recent wars and how technology has been leveraged in these wars starting from Libya to Ukraine. In the Indian context, this is the job of integrated defence headquarters along with perspective directorates of three wings of the armed forces.

R&D to develop new-age technologies in the defence sector is slow to take off and the indigenous defence industry continues to struggle to survive. Except for missile technology rest are still in the 3rd and 4th generation whereas global players are now galloping and breaking new frontiers. India is stuck in a technology trap and perforce we cannot afford to suddenly stop importing weapons and systems since replacements are not forthcoming from the domestic industry.

Recently, the Indian Army ordered a study, headed by a senior Lt General on advanced "niche and disruptive warfare technologies" that range from drone swarms, robotics, lasers and loiter munitions to artificial intelligence, big data analysis and Algorithmic Warfare.[vi]We are still trying to find out what capabilities we should have whereas our adversaries have already acquired fully operational capabilities in niche and disruptive technologies. It is the responsibility of the military to conceptualise the requirement of systems in the next one to two decades and thereafter depending upon the R&D capabilities, Indian industries or public sector undertakings should be assigned individually or jointly to develop the weapons and systems.

One must remember that the prediction of future technology development may not be successful in all cases. Thus a certain amount of failures should be accepted. But projects running behind schedule or failing to meet desired technology standards after considerable budget expenditure and time should also not be acceptable. There is a need to cap budget and timelines for the development of next-generation systems. It should not be open-ended timelines or a no-limit budget. The scope of the paper does not warrant listing out all areas of new technologies, however, a few important issues are discussed related to land forces and non-contact warfare that require urgent attention and a focused approach.

The utilisation of existing infrastructure and expertise must be utilised to develop next-generation systems. A case in point is K9 Vajra artillery guns, what next. Should this facility and infrastructure be wound up or should they be working on the next project to make a next-generation system that can survive against drones and loitering ammunition yet execute its primary task? Should artillery focus only on firing conventional ammunition or should they develop firing Kamikaze to seek and destroy drones from higher calibre guns or rockets? Every project must start work on the next two generations if India as a nation wants to remain ahead of its adversaries in the development of future military technologies.

Should tanks and mechanised vehicles only engage ground-based targets or should future tanks also be able to defend themselves against drones and loitering ammunition? If tanks and mechanised vehicles are not upgraded to take on drones and armed helicopters, they may become a liability in the battlefield. Therefore, few tanks and armed personnel carriers in a regiment should have platforms to defend against Kamikaze armed drones and helicopters.

Where are we today in AI-enabled tanks, logistic vehicles, and

Light Combat Helicopter, designed and developed by HAL

anti-tank systems? The world is witnessing, how Ukraine became a graveyard of Russian tanks and mechanised columns. Thus while advancing in an open country why not include a few AI-enabled tanks to lead advance? They are useful when enemy locations on the ground are not identified. Similarly, AI-enabled vehicles mounted with anti-tank and counter-drone systems should be part of both defensive and offensive formations. By now such systems should have been at the trial stage.

India requires a potent counter-drone system in its inventory, especially for low-flying drones. Today India is largely dependent on air defence guns and missiles to counter drones. It requires detection and neutralisation before these drones can reach the target. Where have we reached as far as detection of drone technology is concerned? No single system can be termed as foolproof for the detection and neutralisation of low-flying drones and swarm drones. Thus short-range radar, Electro-Optic (EO), Infra-Red (IR) and acoustic detection systems[vii] should be developed indigenously. Similarly, there is a need to develop EWS based system for the soft kill of drones.

Soft kill of drones can be carried out by jamming, disrupting communication and taking control of rogue/ enemy drones. Current systems that can be used for soft-kill usually take the form of acoustic, radio frequency, microwave, infrared or optical jammers, decoys, obscurants and cyber techniques.[viii]Soft kills is a more viable option to deal with a swarm drone attack. In addition, soft kill has a wide range of utility for surveillance, interception and even counter missile defence.

Another area is laser technology which is useful against missiles, drones and aircraft. Russian forces foiled a swarm drone attack on an airbase in Syria by employing hard and soft skills simultaneously. Do we have such a concept or organisational structure that can employ systems for hard and soft kill simultaneously?

We need to move fast. Pakistan has started using drones to drop weapons and drugs in J&K and Punjab. The bigger worry is the employment of Kamikaze drones against security establishments in J&K. Saudi Arabia faced massive drone attacks from Yemen that almost halved its oil and gas export. This was despite elaborate air defence systems that were deployed to protect oil installations and important targets.

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India started work on the DEW in 1989 but notable achievement is the development of KALI that can "quickly emit powerful pulses of Relativistic Electrons Beams (REB)" that can damage electronic systems onboard of missiles. But India's DEW technological capabilities are still in the nascent stage.

The next war is going to be a war of cyber, information and EW. Ironically India still does not have a doctrine for EW and IW. India is not only slow the block in technology development in these fields but also slow in defining doctrine that is extremely important to leverage these technologies in war. Lt Gen HS Panag says that We have been left at least two decades behind China concerning military capability in general and Information Warfare and Electronic Warfare in particular.[ix]

Today EW and cyber warfare have become key to fighting a successful war. Recent reports claim that Israeli jets missed their target because of robust electronic suppression (by Russia), which disrupted the weapon systems of the Lockheed Martin F-35 jets.[x] Potent EW can render sophisticated weapon systems ineffective in war. Thus India can no more rely upon imports for high-end EW technology.

It is pertinent to mention that the development of combat aircraft despite Tejas is still far behind the 5th Generation stealth technology. Some countries are now in the development stage of sixth-generation aircraft whereas, we are still stuck in the 3.5 generation. Though India has developed Ballistic Missile Defence (BMD) but is it potent enough against low-flying cruise missiles and hypersonic missiles that have already been demonstrated by China? Need answers to these technological challenges.

Directed energy weapons are a reality and are going to be a game-changer, which include lasers, high-power microwaves, and particle beams. Directed energy weapons are powerful, fast, and accurate, while also being able to operate over a substantial range. Many potential applications include using space-based directed energy systems, allowing the military to destroy targets anywhere in the world.[xi]Though India started work on the DEW in 1989 but notable achievement is the development of KALI that can "quickly emit powerful pulses of Relativistic Electrons Beams (REB)" that can damage electronic systems onboard of missiles. But India's DEW technological capabilities are still in the nascent stage and are not yet comparable to the more powerful systems of countries like the U.S., Russia and China.[xii]

REORGANISATION OF FIELD FORMATIONS

To fight future wars there is a need to reorganise and restructure field

DRDO developed Flying Wing UCAV

formations to leverage modern military technologies during the war. Cosmetic changes in the structure of field formations will not give due dividends. To fight multi-domain wars, there is a need to cast away some archaic structures that are obsolete and inefficient. It is emerging that Armoured Divisions are now a liability when loitering ammunition is playing havoc on the battlefield.

Artillery too is vulnerable if it is not restructured. How will India leverage cyber, information, electronic and space war if the elements of this warfare are not dovetailed with the field formations? The optimisation of resources in a theatre can be achieved when there is the integration of resources. Ironically we are slow to take off from the block in this field. Integrated theatre commands are nowhere to be seen despite the urgency to optimise the limited resources and budget limitations. Let us not wait for the creation of integrated theatre commands for restructuring and reorganisation of field forces. Specific actions within the army, Navy and Air force are desired so that integration becomes smooth and all elements remain operational without any hiccups.

Certain military components can be integrated without formal integration of theatre commands, especially logistics, communication and engineer support. Thereafter, as and when the theatre commands for land, sea and air/space comes into effect integrated logistics, communication and engineer support can plug and play without any red tape.

The big question is where is Indian Armed Force's most potent non-contact warfare structure? Can India deal with the People's Liberation Army Strategic Support Force with three agencies (Cyber, space and special forces division) with limited resources at their disposal? Incidentally, EW and IW were not considered important enough to be added as separate agencies. Where did we go wrong in putting together all elements of non-contact warfare under one command? How will these agencies be deployed during peace and war since non-contact war is an ongoing war irrespective of war and no war situation?

Instead of asking for separate commands for space, cyber and special forces, what should have happened is that the first doctrine and concept of operations should have been defined and thereafter an integrated command that has EW, IW, Cyber and space resources should have been created. It is a puzzle how will these agencies fight an integrated war especially when there are no hybrid or strategic support divisions that can plug and play with the existing territorial command to support land, sea and air operations. It is of utmost importance that India should swiftly create integrated command incorporating EW, cyber, space and IW resources and let the professionals define capabilities and organisational structure. At the same time, hybrid divisions to support operations of territorial command should be considered.

The Russia-Ukraine war has shown that tanks and artillery guns are vulnerable when adversaries have potent drone/ autonomous weapon systems. The question that the Army should ask itself is, should we continue to have armoured divisions till we meet a devastating end of these assets or should we urgently restructure so that we retain the edge provided by mechanised formations in open desert and plains? Why should we have three armoured brigades? Instead, why not have one composite drone brigade with a counter-drone regiment organic to the armoured division. Similarly, restructuring is required for artillery division. It will be to reduce one artillery brigade and add a composite drone brigade to the artillery division. Drones are today flying tanks and flying artillery pieces hence future battlefields will be saturated by drones and autonomous weapon systems. What is needed is smart utilisation of manpower and existing resources without adding additional manpower.

Artillery too is vulnerable if it is not restructured. How will India leverage cyber, information, electronic and space war if the elements of this warfare are not dovetailed with the field formations?

CONCLUSION

The Russia-Ukraine war has compelled most Armies to reconceptualise future wars and doctrine to fight them. There is certainly a need to downsize the overall strength of the conventional military force. However, downsizing must translate into enhancing combat potential by incorporating new-age technology and more efficient structural organisations. There is no denying the fact that the time has come when the Indian defence industry must take it upon itself to compete with the best in the world. India must prepare to deal with the more technologically enabled military of China in any future military engagement. Military technology is not only an enabler to fight a future war but also a tool to avoid war. Thus doctrine and future military technology development is an essential components to maintaining deterrence and avoidance of war.

[i] See Donald H. Rumsfeld, "Transforming the Military," Foreign Affairs, Vol. 81, No. 3,May–June 2002.
[ii] Akshat Upadhyay, Fighting Future Wars: Preparing India for Conflicts in the 21st Century, Observer Research Foundation Issue Brief No. 525, March 2022.
[iii] Alexander Kott, The Future of War Technology Whispers to US from The Past, and we Must Listen Better, War on the December 03, 2019.
[iv] Adam Segal, 'When China rules the Web', Foreign Affairs 97: 5, Sept.–Oct. 2018, p. 12
[v] Segal, 'When China rules the Web'
[vi] H S Panag, India's electronic warfare units are archaic, but camouflage, concealment can blunt PLA, The Print, August, 20, 2020
[vii] RK Narang, Counter Drone Systems: An Opportunity for Self-Reliance, India Foundation, September 6, 2021.
[viii] Mandeep Singh, Soft Kill Air Defence Weapon Systems: The Better Alternative? Indian Defence Review, Issue Volume 37.1 January –March 2022.
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[x] Tanmay Kadam, F-35 Stealth Fighters 'Suppressed' By Russian Electronic Warfare; Missiles Fail To Hit Target – Local Media Claims, The Eurasian Times, June 29, 2022.
[xi] Vikram Mittal, U.S. Critical and Emerging Technology List Forecasts Future Military Needs, Forbes, February 10, 2022.
[xii] Rajeswari Pillai Rajagopalan, What Are India's Plans for Directed Energy Weapons? The Diplomat, September 24, 2020. ■

SERIAL PRODUCTION OF RUSSIAN CHECKMATE IN 5 YEARS

RUSSIA TO START SERIAL production of the fifth-generation light fighter Checkmate in 2027.Rostec CEO Sergei Chemezov said at a meeting with President Vladimir Putin. Work is in progress on the designer documentation for the light fighter jet Checkmate. "We have plans for starting serial production in 2027," he said. So far, a prototype has been created and designer documentation is being developed.

"We borrowed the onboard equipment and the engine from the fifth-generation fighter Sukhoi-57, but reconfigured them somewhat," Chemezov said, adding that Rostec was creating the plane on its own money without drawing budget funds.

BEL SIGNS MOU WITH DEFENSE INITIATIVES, BELARUS

INDIAN GOVERNMENT OWNED BHARAT Electronics Limited (BEL) signed an MoU with Defense Initiatives (DI), Belarus, and Defense Initiatives Aero Pvt Ltd, India (a subsidiary of DI Belarus). The MoU is aimed at co-operation between the three companies for supply of Airborne Defense Suite (ADS) for the helicopters of the Indian Air Force (IAF). BEL will be the prime contractor and will be supported by DI with ToT (Manufacturing and Maintenance) for supply of advanced EW suite for helicopters under 'Make in India' category. The MoU also aims at exploring various business opportunities for India and global markets for ADS.

GERMANY FACING 'GREATEST ENERGY CRISIS'

THE GERMAN ECONOMY MINISTER Robert Habeck has called the ongoing economic crisis as the "greatest energy crisis" the country has ever faced.

Attributing the crisis to over reliance on the Russian energy supply for the situation, Habeck said, "Within months and just a few years we will ensure that we will overcome this dependence." He warned the German people on the expected price spiral in the coming winter. He hoped that in two years country would be able to replace Russian energy import through new technologies including hydrogen.

GERMAN RAILWAY MAKES PROFIT

The high energy cost has benefitted the German Railway positively. German national rail company Deutsche Bahn has made a profit before tax of over €876 million ($888 million) in the first half of the 2022 against the a billion euro loss in 2022.

"We have reversed the trend: Demand is booming and we're back in the black," chief executive Richard Lutz said.

"Demand also grew by 60 per cent for regional travel, and is expected to have increased even further from June due to the 9-euro-ticket initiative of the German government, which was designed to get people onto public transport," reported Germany Today.

SAVE GAS FOR SAFE WINTER

EUROPEAN COMMISSION IS WORKING towards ways to reduce gas requirement by 15 per cent by next spring. In a statement, on July 20, the Commission said, "proposing today a new legislative tool and a European Gas Demand Reduction Plan, to reduce gas use in Europe by 15 per cent until next spring. All consumers, public administrations, households, owners of public buildings, power suppliers and industry can and should take measures to save gas. The Commission will also accelerate work on supply diversification, including joint purchasing of gas to strengthen the EU's possibility of sourcing alternative gas deliveries."

The Commission would come up with "new Council Regulation on Coordinated Demand Reduction Measures for Gas" mandating member states to reduce "gas demand by 15% between August 1 and March 31."

HIGHLIGHTS OF THE PLAN

To help demand reduction, the Commission has adopted a European Gas Demand Reduction Plan.

Substitution of gas with other fuels and overall energy savings
Safeguard supply to households and essential users like hospitals, essential industries and services
Guidelines for Member States to take into account when planning curtailment
Substitute gas with other fuels in summer and store gas for winter
Priority should be given to switching to renewable
Switching to coal, oil or nuclear may be temporarily necessary
Member States to launch public awareness campaigns to promote the reduction of heating and cooling
Member States identify and prioritise
    - Societal criticality – sectors including health, food, safety, security, refineries and defence, as well as the provision of environmental services;
    - Cross-border supply chains – sectors or industries providing goods and services critical to the smooth functioning of EU supply chains;
    - Damage to installations – to avoid that they could not resume production without significant delays, repairs, regulatory approval and costs;
    - Gas reduction possibilities and product/component substitution – the extent to which industries can switch to imported components/products and the extent to which demand for products or components may be met through imports.

HOW EU SECURING ENERGY SUPPLY

To end the EU's dependence on Russian fossil fuels, the Commission adopted REPowerEU Plan which "sets out measures on diversification of energy suppliers, energy savings and energy efficiency, and an accelerated roll-out of renewable energy."

EU underground gas storage to be filled to 80 per cent of capacity by November 1
in-depth review of national preparedness plans
EU Energy Platform to aggregate energy demands at the regional level and facilitate future joint purchasing of both gas and green hydrogen
diversifying away from Russian gas imports thanks to higher LNG and pipeline imports from other suppliers
In the first half of 2022, non-Russian LNG imports rose by 21 billion cubic metres (bcm)
14 bcm from Norway, Azerbaijan, the United Kingdom and North Africa
building a clean and interconnected energy system
sharing domestically-produced renewable energy
Double the renewable energy share to 40 per cent by 2030
Additional 20 GW of renewable energy capacity added in 2022 ■

TURKEY IS NOW TÜRKIYE

ON JULY 1, IN a letter addressed to United Nations Secretary-General Antonio Guterres, Turkish Foreign Minister Mevlüt Cavusoglu informed that his country name has been changed from 'Turkey' to 'Türkiye' and requested him to use the new name for all official purposes.

The new name became effective as the letter was received.

TÜRKIYE INFLATION TOUCHES CLOSE TO 80

Inflation in Türkiye is at all time high. According to the data released by Turkish Statistical Institute, on July 4, there was a 78.62 per cent increase on same month of the previous year and "on the twelve months moving averages basis by 44.54 per cent in June 2022." Reportedly, this is the highest inflation in 24 years.

The highest inflation of 124 percent was recorded in transportation sector followed by food sector with 93 per cent. ■

NORTH KOREA TESTS 8 SHORT RANGE MISSILES

On June 5, North Korea launched eight short-range missiles capable of evading missile defence system. The test closely followed US president Joe Biden's Japan-South Korea visit of May 20. This is was Biden's first visit to Far East as President.

The launch followed the US-South Korea military exercise which ended the day before. According to the South Korean military, the missiles with range of 110-600km were launched from the Sunan area of Pyongyang.

The missiles reached altitudes between 25 km to 90 km. US Indo-Pacific Command in a statement said, "this event does not pose an immediate threat to US personnel or territory, or to our allies, these missile launches highlight the destabilizing impact of the DPRK's illicit weapons program. The US commitment to the defence of the Republic of Korea and Japan remains ironclad." ■

RAMOS –HORTA EAST TIMOR PRESIDENT

ON MAY 20, RAMOS-HORTA became the 7th President of the East Timor. He defeated the incumbent Francisco Guterres by a landslide margin by securing over 62 per cent of votes. Previously, he had served as the 4th president (2007-2012) and premier (June 2006-May 2007). Post 2012 he was heading the United Nations Integrated Peacebuilding Office in Guinea-Bissau (UNIOGBIS) in 2013.

In 1996, Horta and Carlos Filipe Ximenes Belo were jointly awarded noble peace prize "for their work towards a just and peaceful solution to the conflict in East Timor." ■

PM MODI MEETING WITH UAE PRESIDENT

PRIME MINISTER NARENDRA MODI made a brief stopover at Abu Dhabi on his return from Munich on June 28 to convey his personal condolences on the passing away of Sheikh Khalifa bin Zayed Al Nahyan in May. Prime Minister called on President of the UAE and Ruler of Abu Dhabi His Highness Sheikh Mohamed bin Zayed Al Nahyan. This was the first in-person meeting between the two leaders since August 2019 when Prime Minister visited Abu Dhabi last.

Prime Minister also congratulated Sheikh Nahyan on his election as the third President of the UAE. Both leaders reviewed various aspects of India-UAE Comprehensive Strategic Partnership. During their Virtual Summit on February 18, both countries signed the Comprehensive Economic Partnership Agreement (CEPA), which has since entered into force on May 01, which is expected to further boost trade and investment between both countries. Bilateral trade between the two nations is around USD 72 billion. ■

NATO NEW STRATEGIC CONCEPT

TWELVE YEARS AFTER THE Last review in 2010, NATO, in the wake of Russia-Ukraine war, has come up with a new Strategic Concept, encompassing the new geopolitical realities and military challenges, during the Madrid Summit in June. The previous version was adopted at the Lisbon Summit in 2010.

Key Things to Know About the 2022 NATO Strategic Concept

- Euro-Atlantic security is undermined by strategic competition and pervasive instability.
  The Euro-Atlantic area is not at peace.
  The Russian Federation's brutal war of aggression against Ukraine has shattered peace in Europe. Russia has violated the norms and principles that contributed to a stable and predictable European security order, and poses the most significant and direct threat to Allies' security and to peace and stability in the Euro-Atlantic area.
  China's stated ambitions and coercive policies challenge our interests, security and values. Allies will work together to address the systemic challenges posed by China to Euro-Atlantic security. They remain open to constructive engagement, with a view to safeguarding the Alliance's security interests and building reciprocal transparency. Russia and China are developing a strategic partnership and are at the forefront of an authoritarian pushback against the rule based international order.
  Terrorism remains a persistent threat, and is the most direct asymmetric threat to our citizens' security.
  We also face a number of other global and interconnected threats and challenges, including from climate change, as well as emerging and disruptive technologies, and the erosion of the arms control, disarmament and non-proliferation architecture.
- NATO's key purpose and greatest responsibility is to ensure the collective defence of Allies.
  Article 5 of the North Atlantic Treaty is the bedrock of Allied collective defence. The North Atlantic Council could decide to invoke it in response to armed attack. A single or cumulative set of malicious cyber activities; hostile operations to, from, and within space; and hybrid operations against Allies could reach the level of armed attack and could lead the North Atlantic Council to invoke the Article 5.The Alliance is based on the enduring transatlantic bond between Europe and North America. NATO remains the unique, essential and indispensable transatlantic forum to consult, coordinate and act on all matters related to Allies' security.
- NATO fulfils three core tasks: deterrence and defence; crisis prevention and management; and cooperative security.

NORTH ATLANTIC TREATY ORGANIZATION

These three core tasks are complementary and essential to ensure the collective defence and security of all Allies. Ensuring national and collective resilience, enhancing the Alliance's technological edge and fully integrating climate change, human security and the Women, Peace and Security agenda across all of NATO's work are all part of fulfilling the Alliance's three core tasks.

- NATO will work to prevent and respond to crises that could affect Allied security.
  Allies will build on its three decades of expertise in crisis management, and ensure we can deploy and sustain military and civilian crisis management, stabilisation and counter-terrorism operations. NATO will also increase its efforts in crisis prevention, including through support for partners. Human security, including the protection of civilians and civilian harm mitigation, is central to NATO's approach to crisis prevention and management.
- Cooperative security makes NATO stronger at home and contributes to stability beyond its borders.
  Political dialogue and practical cooperation with partners contributes to stability beyond NATO borders, enhances security at home, and supports NATO's core tasks. NATO works with nations and organisations that share its values and interests, to uphold the international rules based order. The European Union is a unique and essential partner for NATO in supporting international peace and security. The Alliance also helps partners to strengthen and enhance their own security through defence capacity building programmes. NATO's enlargement has been a historic success, and its door remains open to European democracies who want to and can contribute to our collective security.
- Resilience underpins all three core tasks.
  NATO will pursue a more robust, integrated and coherent approach to building national and Alliance-wide resilience. Resilience is a national responsibility and a collective commitment. Strategic vulnerabilities and dependencies, including in critical infrastructure, supply chains and health systems, can become security risks. Allies will work together to identify and mitigate such vulnerabilities, enhance their energy security, invest in civil preparedness and boost their capacity to respond and recover from any strategic shocks or disruptions. ■

FOURTH INDIA-JAPAN CYBER DIALOGUE

THE FOURTH INDIA-JAPAN Cyber Dialogue was hosted by India virtually on 30 June 2022. The Indian Delegation was led by Smt. Muanpuii Saiawi, Joint Secretary, Cyber Diplomacy Division, Ministry of External Affairs (MEA), while the Japanese delegation was led by Mr Yutaka Arima, Ambassador in-charge of Cyber Policy, Ministry of Foreign Affairs (MOFA).

Both sides discussed important areas of bilateral cyber cooperation and reviewed the progress achieved in the areas of cyber security and Information and Communication Technologies (ICTs) including 5G Technology. Both sides exchanged views on latest developments in cyber domain and mutual cooperation during cyber consultations at the United Nations and other multilateral and regional fora. Both sides agreed to hold the next India-Japan Cyber Dialogue in 2023 as per mutual convenience. ■

PHILIPPINES NEW PRESIDENT

FIRST PRESIDENTIAL CANDIDATE SINCE the creation of fifth republic in 1986, Philippines has elected a president with clear majority. Ferdinand Romualdez Marcos Jr., better known as Bongbong Marcos, the son of former president Ferdinand Marcos Sr.(1965-86), defeated Leni Robredo by margin of over 16.5 million votes.

He took oath of the president on June 30 and became the 17th president of his country. This marks the return of Marcos family to political power in the island nation since the People Power Revolution of 1986. His running mate and vice-president is Sara Duterte, daughter of Rodrigo Duterte, the 14th President of Philippines.

Marcos received 31,629,783 votes, or 58.77% of the total votes cast, about 16.5 million votes ahead of his closest rival, Vice President Leni Robredo, who received over 15 million votes, becoming the first presidential candidate to be elected by a majority since the establishment of the Fifth Republic in 1986. ■

SWEDEN-NATO EXERCISE TO SECURE GOTLAND

SIXTEEN NATO ALLIED AND partner nations concluded the 51st iteration of Baltic Operations 2022 (BALTOPS22) in Kiel, Germany, June 17, 2022.

While in port, participants will reflect on achievements and relationships formed during the 13- day exercise which featured 47 ships, 89 aircraft, and 7,000 personnel in the Baltic Sea.

"BALTOPS, with the high degree of complexity, tested our collective readiness and adaptability, while also highlighting the strength of our Alliance and resolve in providing a maritime domain with freedom of navigation for all," said Vice Adm. Gene Black, commander, U.S. Sixth Fleet and Naval Striking and Support Forces NATO (STRIKFORNATO).

Led by U.S. Sixth Fleet, BALTOPS 22 was command and controlled by STRIKFORNATO. From the staff's headquarters in Oeiras, Portugal, Rear Adm. James Morley, STRIKFORNATO deputy commander, was responsible for ensuring participants met all training objectives.

"We here [at STRIKFORNATO], safely executed an ambitious training scheme on behalf of the 16 Allied and partner nations in the exercise, improving combat readiness and demonstrating the ability to work seamlessly together across all environments- in the air, on the ground, and at sea," said Morley.

Participating nations included Belgium, Bulgaria, Denmark, Estonia, Finland, France, Germany, Latvia, Lithuania, the Netherlands, Norway, Poland, Sweden, Turkey, the United Kingdom, and the United States. These countries participated alongside one another to test the flexibility, adaptability, and capabilities of maritime and amphibious forces.

Though this is not the first time Sweden has participated in BALTOPS, this iteration was unique because it coincided with the celebration of the Swedish Navy's 500th anniversary. Sweden provided significant support to BALTOPS 22, including hosting the pre-sail conference in Stockholm and numerous events on Swedish territory and in Swedish waters and airspace.

Gotland Island, Sweden served as a training ground for several air insertions and amphibious landings from the USS Kearsarge Amphibious Ready Group-22nd Marine Expeditionary Unit and Swedish counterparts. Additionally, the exercise included complex personnel recovery training scenarios and a submarine rescue. To the southeast, Latvian forces integrated with other partner nations to practice multi-domain landings, and Poland's Ustka training range served as a staging ground for rigorous amphibious landings during BALTOPS 22.

Rear Adm. John Menoni, commander, Expeditionary Strike Group Two, and head of all amphibious forces during the exercise, remarked how BALTOPS 22 provided participant forces a two-week window to operate unified and "not just ensuring the radios and weapons work well," but rather "in the way we sail and fight together." ■

RAFAEL UNVEILS THE SPIKE NLOS 6TH GEN MISSILE

RAFAEL ADVANCED DEFENSE SYSTEMS Ltd. unveils the SPIKE NLOS 6th generation precision missile this month at Eurosatory 2022 in Paris, France.

Rafael's SPIKE missile family of multi-purpose, electrooptical guided missiles provides pinpoint precision at extended ranges with the NLOS variant successfully engaging non-line of sight targets. SPIKE NLOS, launched from air, land, or naval platforms, provides critical real-time tactical intelligence and damage assessments allowing it to adjust targets and abort missions midflight, and operate in both offensive and defense scenarios. ■

IAF TO BECOME AEROSPACE FORCE

DEFENCE MINISTER RAJNATH SINGH has exhorted the Indian Air Force (IAF) to become an Aerospace Force and be prepared to protect the country from the challenges of the future. Rajnath Singh called for technology evolution, gaining expertise and human resource management to defend the country against space-guided attacks and protect the space assets.

"Change is the law of nature. It is eternal. This law is applicable to war as well. As students of military affairs and geopolitics, it is our duty to keep anticipating the nature of future wars. Steps are being taken by our adversaries towards military use of space. This is likely to have an adverse effect on our interests. We, therefore, need to identify and be fully prepared for the evolving security challenges," he said. ■

INDIA CLEARS USD 10 B WORTH PROPOSALS

FOLLOWING PRIME MINISTER NARENDRA Modi's clarion call for 'Aatmanirbharta', Defence Acquisition Council (DAC), in a meeting chaired by Defence Minister Rajnath Singh on June 06, accorded Acceptance of Necessity (AoN) for Capital Acquisition Proposals of the Armed Forces amounting to Rs 76,390 crore under 'Buy (Indian)', 'Buy & Make (Indian)' and 'Buy (Indian-IDDM)' categories. This will provide substantial boost to the Indian Defence Industry and reduce foreign spending significantly.

For the Indian Army, the DAC accorded fresh AoNs for procurement of Rough Terrain Fork Lift Trucks (RTFLTs), Bridge Laying Tanks (BLTs), Wheeled Armoured Fighting Vehicles (Wh AFVs) with Anti-Tank Guided Missiles (ATGMs) and Weapon Locating Radars (WLRs) through domestic sources with emphasis on indigenous design and development.

For the Indian Navy, the DAC accorded AoN for procurement of Next Generation Corvettes (NGC) at an estimated cost of approx. Rs 36,000 crore. These NGCs will be versatile platforms for variety of roles viz. surveillance missions, escort operations, deterrence, Surface Action Group (SAG) operations, Search & Attack and Coastal Defence. These NGCs would be constructed based on new in-house design of Indian Navy using latest technology of ship building and would contribute to further the Government's initiative of SAGAR (Security and Growth for all in the Region).

The DAC accorded AoNs for manufacture of Dornier Aircrafts and Su-30 MKI aero-engines by the Navratna CPSE M/s Hindustan Aeronautics Limited with focus on enhancing indigenisation particularly in indigenising aero-engine material.

In pursuance of the Government's vision for digital transformation in Defence, 'Digital Coast Guard' project under 'Buy (Indian) Category has been approved by the DAC. Under this project, a pan India secure network for digitising of various surface and aviation operations, logistics, finance and HR processes in Coast Guard will be established. ■

SPIKE FIREFLY LOITERING MUNITION EVALUATED BY THE US ARMY

RAFAEL ADVANCED DEFENSE SYSTEMS and its US subsidiary RSGS demonstrated the SPIKE FIREFLY loitering munition at the Army Expeditionary Warrior Experiment 2022 (also known as AEWE). AEWE 2022 is a collaborative venue under the Maneuver Battle Lab of the Maneuver Center of Excellence at Fort Benning. It is the Army's primary venue for Small Unit modernization, providing capability developers, Cross Functional Teams (CFTs), PEO's, the Army Science and Technology (S&T) community and industry a repeatable, credible, rigorous operational experiment supporting both concept and materiel development. This year the assessment included in addition to US army Soldiers from the Netherlands Army & the United Kingdom Army. ■

INDIAN ARMY PARTICIPATES IN EX KHAAN QUEST

A MULTINATIONAL PEACEKEEPING EXERCISE "Ex Khaan Quest 2022" featuring participation from military contingents from 16 countries has commenced in Mongolia. President of Mongolia Ukhnaagiin Khurelsukh inaugurated the Exercise.

Indian Army is represented by a contingent from the LADAKH SCOUTS. The 14 day exercise is aimed at enhancing interoperability, building military to military relationships, developing peace support operations and military readiness among participating nations.

India-Israel Discuss Improving Defence Cooperation

Indian Defence Minister Rajnath Singh held a bilateral meeting with Defence Minister of Israel Benjamin Gantz in New Delhi on June 02. A wide range of issues concerning bilateral, regional and defence industrial cooperation were discussed during the meeting. The two Ministers reviewed the existing military-to-military activities which have increased despite the challenges due to COVID-19 pandemic. They discussed ways to increase cooperation in all domains with a focus on Research & Development in future technologies and defence co-production.

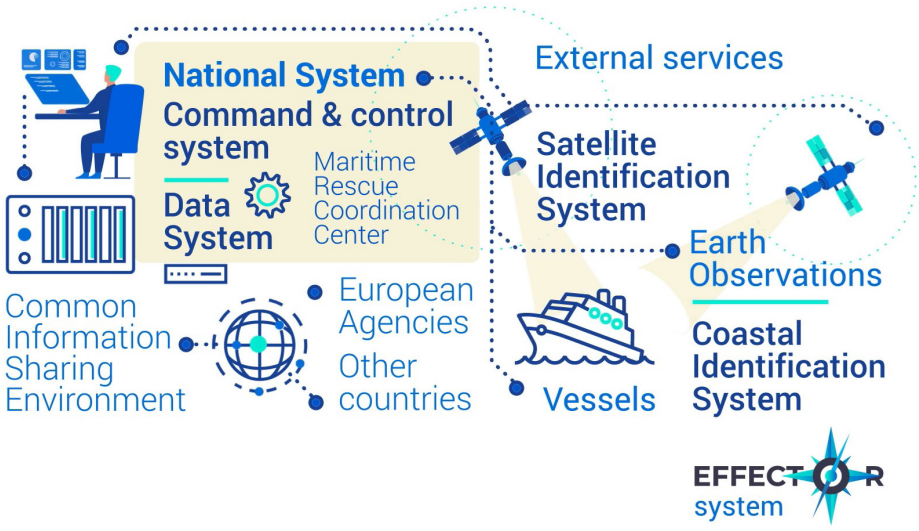
With the intention to further strengthen the existing framework of the Indo-Israeli defence cooperation architecture, both sides adopted the India-Israel Vision on Defence Cooperation. A Letter of Intent on enhancing cooperation in the field of Futuristic Defence Technologies was also exchanged between the two Ministers. ■

AIRBUS AND BSNL DELIVERS CRITICAL COMMUNICATION SERVICE

AFTER A PHASE OF IMPLEMENTATION and testing, the Tactilon Agnet 500 developed by Airbus Secure Land Communications(SLC) is now being fully operational in India in collaboration with Arubaito and Bharat Sanchar Nigam Limited (BSNL). This is an important milestone that marks the official commercial start of the project.

Tactilon Agnet is a state-of-the-art Mission-Critical communication Service (MCS) for business and mission-critical users, based on the mobile telecommunications standard of the 3rd Generation Partnership Project (3GPP). As a future-proof modern, easy-to-use, flexible and scalable solution, Tactilon Agnet 500 can acquire and transmit data, video and voice to all relevant bodies at once – securely and reliably. It allows radio-device, smartphone, tablet, and laptop users to communicate individually, or in a group. ■

NAVAL GROUP DEMONSTRATE EFFECTOR MARITIME SURVEILLANCE



NAVAL GROUP, A KEY partner in the European EFFECTOR project, demonstrates its maritime surveillance solution alongside the Secrétariat Général de la Mer (General Secretariat for the Sea)

On 11 and 12 May, Naval Group and its partners successfully conducted a major operational demonstration of the EFFECTOR project. This demonstration took place at the Regional Operational Centre for Surveillance and Rescue in the Mediterranean (CROSS MED) and involved the SeaMIS maritime surveillance and rescue coordination system, developed by Naval Group, as well as the maritime surveillance systems of other European states as part of cross-border cooperation operations.

The EFFECTOR project is a €5 million project funded by the European Union. It was awarded in 2020 to the consortium coordinated by the Secrétariat Général de la Mer. Naval Group is the technical coordinator of this consortium which brings together 16 partners from 6 European countries: France, Greece, Portugal, Italy, Bulgaria and Montenegro. ■

NAVAL GROUP PARTNERS WITH ITALY'S GRIMALDI FOR PIAQUO

The European Life-PIAQUO project aims to reduce the impact of maritime traffic noise on marine ecosystems. It aims to develop concrete solutions for maritime transport, some of which will be tested on a Grimaldi ship.

A European project to protect underwater ecosystems Since September 2019, Naval Group has been leading the European Life-PIAQUO project, which aims to reduce the impact of maritime traffic noise on marine ecosystems.

Noise generated by maritime traffic has indeed increased over the last fifty years, due in particular to the increased number of ships and their tonnage which has significant negative consequences on underwater fauna. Noise pollution is mainly caused by propellers and the phenomenon of cavitation.

The Life-PIAQUO project therefore aims to propose concrete solutions for those involved in maritime transport, particularly in the Mediterranean. Naval Group's commitment to this project is part of its desire to strengthen the dynamic of respect for the environment within its activities. ■

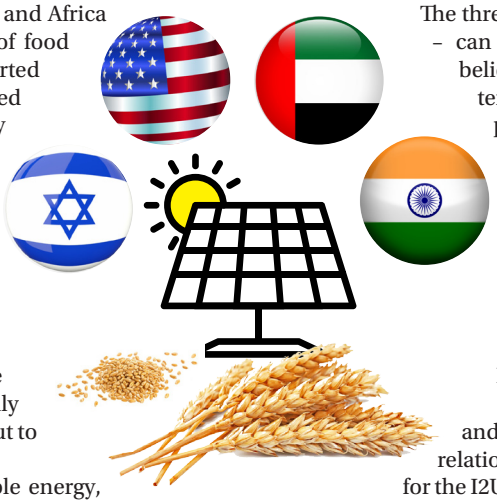
CAN I2U2 GO BEYOND BUSINESS?

The inaugural I2U2 summit of India, Israel, the US and UAE conducted in virtual mode is being termed as 'West Asian Quad' and can be a game changer for India's relationship with West Asia. But, do all the members share common values?

by **ROHIT SRIVASTAVA**

On July 14, heads of governments of India, Israel, the USA and UAE met virtually for the first I2U2 summit. This was the mark of a new geopolitical paradigm of Indo-Abrahamic relations. In the times of regional multilateralism, like Quad, this could be a game changer, as many commentators have suggested, but the fundamentals of West Asia are not in conformity with the values that are at the core of Indian civilization.

The joint released post I2U2 summit focused on two critical areas, food and renewable energy. West Asia and Africa are two of the most deficit areas in terms of food production. They are dependent on imported food. Despite their wealth gulf nations faced difficulty in securing food as the global supply was disrupted. The world has realised that globalisation can't ensure regular supplies. The I2U2 is an effort to mitigate food and energy security risks.



On one hand, the food deficit nations would invest in India as a strategic investment as insurance for food security for its people. On other hand, the US and Israel, through sharing of technology, would ensure Indian agricultural output is substantially increased to ensure surplus agricultural output to feed other nations.

Similarly, through partnership in renewable energy, the energy and cash-rich nations (US and UAE) would invest in the renewable sector to reduce Indian energy imports. India's stand on Russia is primarily argued around acquiring cheaper energy for domestic requirements.

The I2U2 statement is primarily India-centric. A strategic masterstroke from the American perspective wherein provide India with what it needs and thus blunt the Indian geopolitical argument which favours Indo-Russian strategic ties.

What is not mentioned is that if India is somehow wooed towards the West completely, then the BRICS reserve currency would not have the might of India's economy. A substantial loss of strength to the currency.

A careful reading of BRICS, G7 and I2U2 statements make one thing crystal clear the West is burning the midnight oil to save the current global financial system. They may talk about food security, climate change, climate neutrality, energy security etc. but the focus is on reducing the market share of Russian natural resources and saving the global financial system.

The three major nations – India, China and Russia – can change the world order and the West believes that India is indecisive in its long-term strategy and the Indian middle class is pro-west as long as Indian interest is not compromised. If substantial incentives are provided to India then it can be won. The I2U2 intends to solve this challenge.

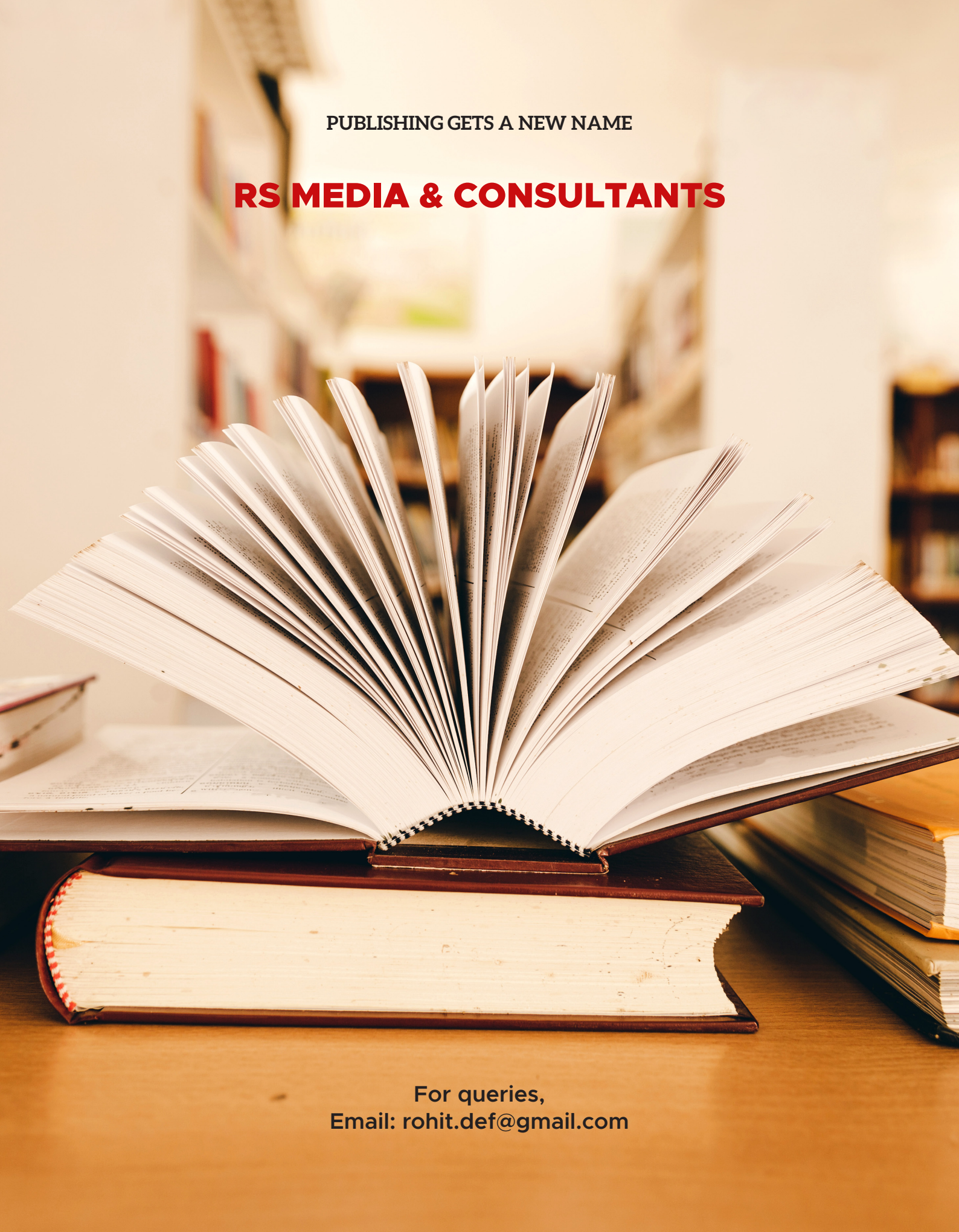
Analysts have tried giving a larger canvas to I2U2, covering its transactional nature, by calling it the 'Indo-Abrahamic' alliance. This is in line with the Abrahamic Accord signed between Israel, UAE and USA.

The strategic India-Israel relationship and multi-faceted India-UAE business relationship provide the much-needed ground for the I2U2. What is missing is the larger idea to deal with other major West Asian nations with whom India shares a close trade relationship. Will I2U2 act as a roadblock or facilitator in India's relationship with West Asia? Time will tell. But one thing is sure, the Abrahamic nations are divided a lot and what Abraham represents is not in accordance with the essence of India's civilizational values. The adverse reaction of the Islamic nations to the Nupur Sharma incidence provides much to think over.

All successful relationships among nations should not be an alliance. ■

PUBLISHING GETS A NEW NAME

RS MEDIA & CONSULTANTS



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