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G20 SPECIAL ISSUE

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Issue 02 | September 2023

INTERVIEW

"The policies and investments that the Indian Government is making line up with a macroeconomic and geopolitical moment that promises to create significant growth...The US wants to be a trusted partner in that growth."

US SECRETARY OF COMMERCE
GINA RAIMONDO

G20
भारत 2023 INDIA

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A JOURNAL OF GEOPOLITICS AND TECHNOLOGY BY

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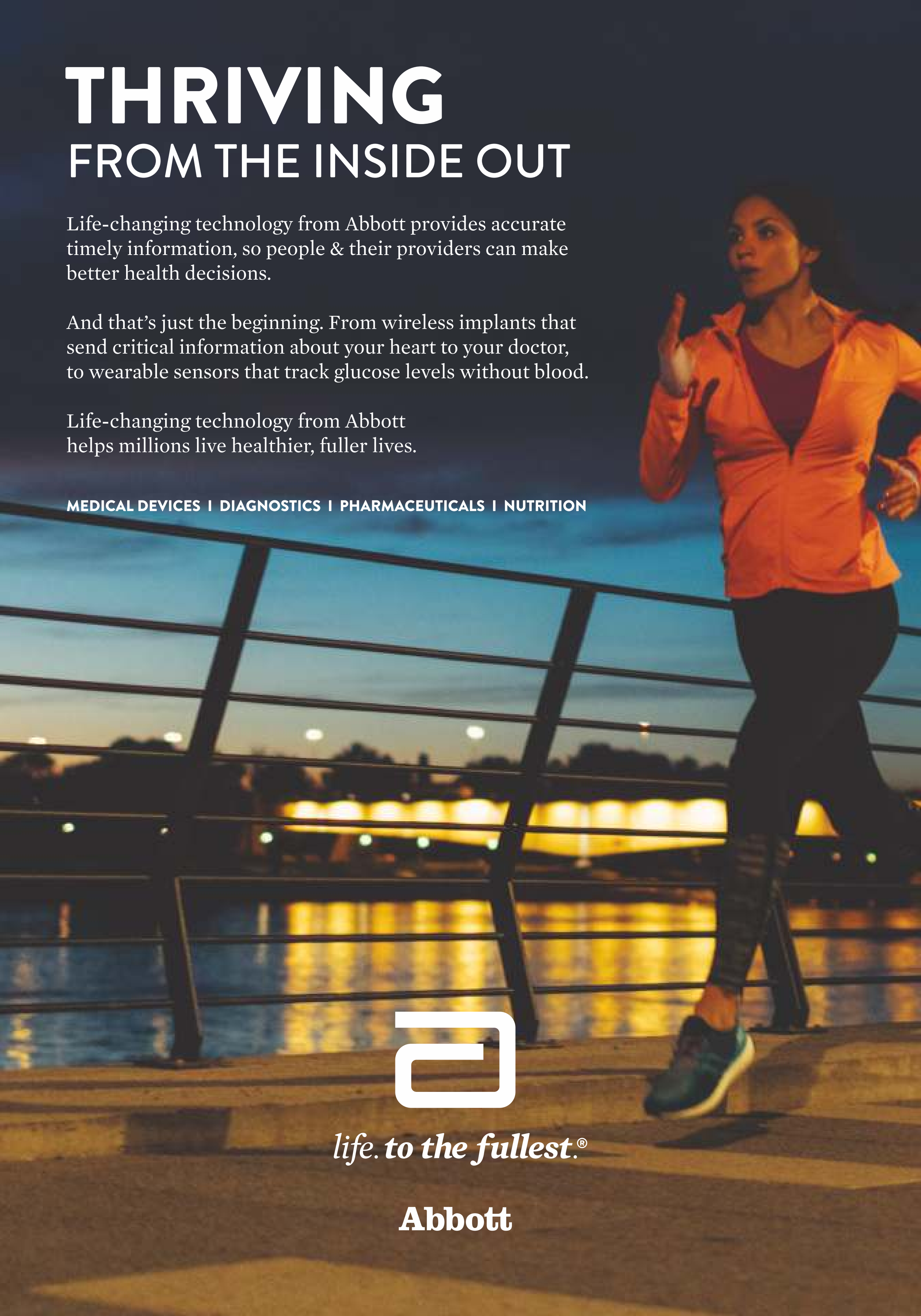
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QUAD
A JOURNAL OF GEOPOLITICS AND TECHNOLOGY

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OPENING REMARKS

With both the US and the G20, India is trying for summitry with substance.

The strategic relationship between India and the United States has been running on multiple tracks, all of them moving at a rapid pace. This year has seen a steady stream of high-level visitors, a procession of path-breaking agreements, a remarkable bilateral summit and now the grand finale of India's Group of 20 presidency.

Among the first bilateral events of the year was a visit by US Secretary of State Gina Raimondo in March during which India and the US signed a Semiconductor Supply Chain and Innovation Partnership. This was a forerunner to the even more remarkable technology agreements that were announced when Prime Minister Narendra Modi visited Washington in June as a guest of President Joe Biden. In this issue we reprint Raimondo's interview to Quadplus's website in the run-up to her visit, where she lays out the strategic logic of such partnerships.

The glimpse of what a future technology partnership could mean offered by Raimondo became a full-blown technicolour vision when the Modi-Biden summit was held. The joint statement made this explicit: "technology will play the defining role in deepening our partnership."

The two countries are now committed to working together on a dizzying array of scientific and technological areas. These include critical minerals, human spaceflight, advanced telecommunications, public digital infrastructure, quantum technology, and high-end defence industrial production and development. "No corner of human enterprise is untouched by the partnership between our two great countries, which spans the seas to the stars," said the joint statement.

Where the rubber hits the strategic road is the US commitment to invest in deepening and strengthening India's still evolving technological capacity. The promises have been made and the papers drafted and signed. Converting these into tangible and successful knowledge relationships in business, academia and Government has now begun. And the investments have started to flow, albeit slowly.

Semiconductor-related announcements may grab the headlines, but an equal sign of trust and confidence are the hundreds of research and development centres and high-end components that Western firms are setting up in India. The technologies being offered along with the GE 414 jet engine are the stuff of history, but the joint task force on university partnerships could have greater far-reaching effects. Ensuring India has the ability to absorb, and absorb on scale, all that is on offer will be the challenge of the coming decade.

India's presidency of the G20 is also about testing the country's capacities. Multilateral diplomacy is the most difficult form of statecraft. A multiplicity of Governments and a legion of domestic interests have to be aligned, numerous side deals have to be struck, and a large number of personalities handled with care. This has not been India's traditional forte. It may have founded a number of multilateral bodies like the Nonaligned Movement, but their effectiveness was mostly restricted to speeches and virtue signaling.

What India hopes to show at the present G20 summit is that it has the profile to persuade other Governments to work together towards solving a global problem. Which is why the Indian prime minister has focused on climate as the centre piece of his G20 agenda. As Ajit Pai, former head of the economics and finance cell of NITI Aayog, explains, the issue of green finance, trying to get sufficient funds for green transition in emerging economies and developing countries, is an especially knotty issue. Beyond that is a whole family of future fuels, such as ethanol, that will receive their first real international boost at the G20, writes Arunabha Ghosh, chief executive officer of the Council of Energy Environment and Water. Doug Arner of Hong Kong University notes how this summit is an opportunity, however slim, for common global regulations in the cyber sphere.

The Global South is a concept that has been resurrected and incorporated by India in the G20 agenda. Before the summit, India had canvassed over 100 Governments as to their policy concerns and concluded there was considerable resentment among these countries at what they saw as neglect, if not outright exploitation by the international establishment. While much of this was aimed at the West, it was also evident China was being seen in an equally jaded fashion by swathes of Africa and the Middle East. It would be too much to expect India to fill so many large shoes, but a G20 agenda was an obvious and easy means to assuage this angst and win some points with the world outside the twenty richest nations. Gurjit Singh, former Indian ambassador to several Global South countries and bodies, explains these dynamics in his article.

Indian diplomats say that the United States was among the most supportive Governments of their lobbying efforts, especially over the green finance element of multinational development bank reforms. In stark contrast was China which not only marred the summit preparations by saying its leader, Xi Jinping, would not attend even as it waged guerrilla warfare at the closed door negotiations. G20 summits traditionally produce little but platitudes so even one or two major accomplishments would be a success. Given the sorry state of India's relations with China and the disruption of the Ukraine war, that is probably as much as could be expected. Nonetheless, the summit will showcase India's diplomatic arrival even while, quietly, underlining how much India and the US can do and are doing together.

Pramit Pal Chaudhuri

Editor

“We know we won't be successful in semiconductor manufacturing and R&D on our own, so we are focused on coordinating with our allies and partners, including India.”

The United States Secretary of Commerce Gina Raimondo has been at the forefront of a new vision of trade that incorporates strong doses of industrial policy and geopolitics. She has made the case at home and abroad how today trade and investment, especially in critical and emerging sectors, has to about trusted partners and secure supply chains. But it is also about collaborating with countries like India, which is why she is visiting New Delhi this month.

Secretary Gina Raimondo, in conversation with Quad+ editor, Pramit Pal Chaudhuri, shares her thoughts on the importance of the US-India relationship in an era of technological contestation.

Q: *You are traveling with a group of US CEOs to New Delhi in March. How do you view the US-India relationship, and what do you hope to achieve on your trip?*

A: This is an optimistic time for India and an optimistic time for US-India relations. In the lead up to my trip, I have spent a lot of time speaking with US CEOs about their businesses in India and there is a consistent theme of opportunity. The policies and investments that the Indian Government is making line up with a macroeconomic and geopolitical moment that promises to create significant growth.

The United States Government and US firms want to be trusted partners in that growth. That's really what my trip is about and it's why I am coming with a group of leading US CEOs committed to working together with the Indian business community to realize this opportunity.

While we are here, we will convene the US-India CEO Forum. I will also lead the US India Commercial Dialogue with the Minister of Commerce and Industry Piyush Goyal. I look forward to our discussions where we are currently exploring collaboration opportunities, including semiconductors, supply chains, and technology.

"The policies and investments that the Indian government is making line up with a macroeconomic and geopolitical moment that promises to create significant growth…The US wants to be a trusted partner in that growth."

" [In the Quad] we are collaborating in advanced communications and artificial intelligence, and coordinating on prominent leadership elections in standards bodies such as the International Telecommunications Union."

Q: *Madam Secretary, you have been among the leading official US voices stressing the importance of technology in contemporary geopolitics. Can you explain why this is more important today than it was in previously?*

A: Technology has always been critical to our national and economic security. Today, the stakes are even higher as countries around the world have become reliant on a handful of key foundational technologies. Take semiconductors, for example. In 2021, car prices increased nearly 30% and were responsible for a third of core inflation—all because we didn't have enough semiconductors. Due to the chip shortage, there was product scarcity in a number of key industries, including vehicles, medical devices, appliances, and consumer electronics.

That's why we are making generational investments in the semiconductor industry through the CHIPS and Science Act. We are investing over $50 billion in semiconductor production and R&D. But we know we won't be successful in this on our own, so we are focused on coordinating with our allies and partners, including India. This collaboration on technology in general, and semiconductors in particular, is a major focal point of my trip.

Q: *What are the Quad's main accomplishments, and what would be your vision of what it looks like in the future?*

A: I had the opportunity to attend the first in-person Quad Summit in September 2021 with President Joe Biden and Secretary of State Tony Blinken. It was a historical event and an opportunity to recommit to our partnership with a region that is a bedrock of our shared security and prosperity.

Since the start of the Biden-Harris Administration, Quad leaders have set forth an increasingly ambitious agenda and continue to actively address some of the region's most important challenges, such as Covid-19 vaccine assistance, economic recovery from the pandemic, the impact of climate change, the provision of humanitarian assistance and disaster relief, securing and advancing critical and emerging technologies, cooperation on infrastructure building, and more.

Some of our most significant work with Quad partners has been in the area of critical and emerging technologies (CET), where we have an opportunity to work together with India, Japan, and Australia, to ensure that technology is designed, developed, governed, and used in ways that reflect our shared values and respect for universal human rights.

Technology areas that are integral to our everyday lives - such as AI, 5G/6G communications, and biotechnology - will have a profound impact on our society and the underpinning technology standards will enable technology that is safe, universal, and interoperable.

Within the Quad, we are focused on both emerging technology and technology standards. We have collectively affirmed our shared support for standards that are based on technical merit and are led by the private sector in partnership with Government, versus driven by individual Governments and their industrial policies.

We have made significant strides in the last year, collaborating in advanced communications and artificial intelligence, and coordinating on prominent leadership elections in standards bodies such as the International Telecommunications Union (ITU). And we are jointly developing a set of principles that will reaffirm that technology standards are an integral part of this technology ecosystem, are driven and supported by the private sector, and ultimately support innovation and enable global trade.

> *"The US is making once-in-a-generation, transformational…As we do so, it is critical that we avoid a race to the bottom with our trading partners. We know that we cannot make everything here in the United States, nor should we."*

Q: *How do you see the accomplishments of new bodies of international cooperation the United States is supporting in the region?*

A: I am especially proud of what we are accomplishing through the Indo-Pacific Economic Framework, or IPEF, which President Biden launched in May 2022 and includes 13 regional partners, representing 40% of the global GDP.

IPEF sets an affirmative vision for economic cooperation across the region and provides solutions for addressing the major challenges of the 21st century, including digital transformation, supply chain resilience, a clean energy transition, and strengthened anticorruption efforts.

We hear over and over again in the Indo-Pacific region that there is a strong desire for US economic engagement along with a positive vision and agenda. Our business community is also tells us that they and their employees here in the United States will benefit from restored US economic leadership in the region.

We are pursuing new approaches to addressing critical economic issues. It's an important opportunity to be creative and to make our markets more attractive at a time make our markets more attractive when global businesses are looking for new places to manufacture and grow.

Together, we are creating a roadmap for cooperation and aligning objectives to meet our economic goals for our workers, our businesses, and our communities. Our success will fuel economic activity and investment throughout the region.

India is a vital partner in this work. I have been working closely with Minister Goyal throughout this process. And I grateful to him and his team for recently hosting an IPEF negotiating round on pillars II-IV in Delhi. Continued leadership from India will be critical to IPEF success.

"The stakes [around technology] are even higher as countries around the world have become reliant on a handful of key foundational technologies."

Q: *The US, Japan, India, and the European Union have similar high-end industrial policies. While these are often driven by a desire to address current and future geopolitical threats, these policies can also serve to undermine the economies of each other. Is there a conflict between these national policies and the larger geopolitical goal of these countries?*

A: The United States is making once-in-a-generation, transformational investments needed to revitalize our infrastructure, ensure a green transition, and create resilient supply chains to the benefit of the US and our friends and allies. As we do so, it is critical that we avoid a race to the bottom with our trading partners. We know that we cannot make everything here in the United States, nor should we.

That is why in so many conversations about the resilience and security of our global supply chains, we talk about coordinating with like-minded countries and "friend-shoring." Whether it is semiconductor manufacturing or meeting the challenges of the climate transition, we are working to coordinate with our trading partners to avoid subsidy races that leave all of our supply chains less resilient and secure.

Q: *You have spoken about the need for the US to churn out engineers and scientists to take on shared challenges. But the United States already imports large numbers of students and workers from India. As India's youth population becomes the world's largest, is synergy possible here?*

A: Talent is absolutely key to our strategy to being competitive in the global economy. Whether that's tapping into America's underrepresented communities to leverage the strength of our diversity or serving as a welcoming destination for attracting talent from abroad, we are working hard to make sure that talented people can unlock their potential and thrive in the education and innovation ecosystem here in the United States.

Through initiatives like the Education and Skills Working Group, which Secretary Blinken and Minister S. Jaishankar agreed to at last year's 2+2 Ministerial, and the Quad Fellows Program, we are actively looking for ways to expand research, cooperation, and programs between U.S. and Indian educational institutions, academics, and researchers.

Making Climate Finance Work for the South

By Ajit Pai

Fighting in Ukraine to higher interest rates, global economic pressures means the developing world has been falling behind on their climate and sustainable development targets. Encouraging private capital to fund green projects outside the North is an imperative.

Recognizing that traditional development finance is unable to fill the growing green financial gap and credit rating agencies are too hidebound, the G20 tracks are looking at alternative ways to encourage green private capital flows to the South. Among the proposals are tapping India fintech experience or developing a credit standard that incorporated the degree to which such projects contributed to the global public good.

Almost seven years since the Paris Agreement, the world is falling behind on international climate targets. The interruption to business as usual caused by the pandemic certainly did not help, but the impact of climate change continues to become increasingly pronounced and it is becoming apparent that more can and should be done to close the gap. The broader participation in the Paris Agreement relative to the Kyoto Protocol, with more than double the signatories, may have further highlighted the cause but the core issue of financing for countries outside the OECD (Organization for Economic Co-operation and Development, a body of the wealthier market-based economies) challenge.

As the pandemic slips from top of mind for global policy makers, it leaves behind in its wake greater risks and uncertainties for most countries around the world relative to just prior to the pandemic. Besides the accentuated geopolitical risks from the Russia-Ukraine war and repolarizing world, many countries are facing tremendous fiscal pressures from higher debt levels and a negative impact on revenue. These pressures on the economy are further exacerbated by the highest inflation in decades in the OECD, central banks responding by raising interest rates, and rising protectionism with weakening global consumption moderating international trade.

World falls further behind

It is thus not surprising that in this environment of decelerating global growth and broadening fiscal pressures that the world has fallen further behind on its intended climate and SDG (sustainable development goals, adopted by the United Nations in 2015) targets. It is also not surprising that the cost of capital for climate-change and SDG-related projects has become prohibitively high for many countries even beyond those that recently grabbed the headlines like India's neighbours Bangladesh, Pakistan, and Sri Lanka.

"The world has fallen further behind on its intended climate and sustainable development goals. The cost of capital for such projects has become prohibitively high for many countries in the developing world."

India's own progress towards its climate goals have become increasingly ambitious. In August 2022, India formally updated its Nationally Determined Contribution, increasing its goal to reduce emissions intensity to 45% by 2030 compared to 2005 levels, and committing to achieving 50% cumulative installed power capacity from non-fossil fuel sources by 2030.

Earlier, at COP26 (conference of the parties of the United Nations Climate Change Conference), India also pledged to attain net zero emissions by 2070. India has announced its National Hydrogen Mission, and with France cofounded the International Solar Alliance that has gained momentum with 110 member countries and is actively promoting solar projects in developing countries. Despite these highly desirable targets, the best of intentions, and proactive steps to accelerate progress in climate efforts, things could be a lot better. Access to finance and cost of capital remain significant impediments to faster progress in India and in other developing countries.

Given the strong weightage of per capita GDP in sovereign credit ratings, owing largely to the likely flawed assumption that ability to pay is a superior metric in determining creditworthiness than propensity and intention to repay, the cost of capital

for projects in developing countries is significantly higher than that in the OECD. Clearly, the number of economically and financially viable projects would increase substantially if their cost of capital was substantially reduced.

Also, if the pool of capital to invest in climate change was increased substantially then the number of such projects that would receive funding and progress faster would increase. For just such a purpose, the Green Climate Fund (GCF) was established in 2010 to assist developing countries in adaptation and mitigation practices to counter climate change. It had set a goal of raising $100 billion by 2020 but had only achieved slightly over $10 billion until recently.

Further, the GCF functioning has highlighted many issues that would have to be considered more closely to ensure the effectiveness of the fund for its purpose, including but not restricted to the balance between adaptation and mitigation, private sector participation, and the grey area between business-as-usual projects and those that are truly incremental progress towards the desired goals. In addition, whether another new international climate institution which may further fragment public dollars is necessary.

Green financial debates

Another factor that is a recurring bone of contention between the developed and developing world is who contributes the investment required for addressing the climate change issues. How much should come from developed nations that have contributed the most to climate change historically and currently have relatively high per capita carbon footprints? And how much from developing nations that are currently growing theiinstitutions that were set up post World War II to promote global development and financial stability, have not evolved and scaled fast enough with changing global circumstances to effectively and comprehensively deliver for what the world requires today. The global economy and worldwide debt have grown substantially faster than the balance sheets of these institutions, reducing their relative impact.

Furthermore, now recognized factors materially impacting financial stability like climate change and sustainable development goals have not been sufficiently reflected in the operating of these two venerable institutions, where mandates understandably evolve with a lag. r carbon footprints faster than the developed world?

The other major factor that the world is grappling with is that the World Bank and the International Monetary Fund, the two key global multilateral. In the current G20, under India's presidency, there has been a greater focus on reform or restructuring of these institutions to better address current global

Progress of G20 countries towards SDG 13 (Climate Action)

Country	Progress	Country	Progress
Argentina	🟡⬆	Italy	🔴↗
Australia	🔴➡	Japan	🔴↗
Brazil	🔴⬆	Mexico	🟠↗
Canada	🔴↗	Russia	🔴↗
China	🟡↗	Saudi Arabia	🔴↗
EU	🟡↗	South Africa	🔴↗
France	🔴↗	South Korea	🟠↗
Germany	🔴↗	Turkey	🔴➡
India	🟢⬆	UK	🔴➡
Indonesia	🟡↗	USA	🔴↗

🟢 SDG achievement 🟡 Challenges remain 🟠 Significant challenges remain 🔴 Major challenges remain

⬆ On track ↗ Moderately increasing ➡ Stagnating ⬇ Decreasing

Source: Sustainable Development Report 2022, Cambridge University Press

requirements, especially to address climate change, and more broadly SDGs. This may be necessary but not sufficient, given our revised understanding of the magnitude of the problems facing us.

During India's G20 presidency, early progress of working groups across both finance and sherpa tracks as well as that of engagement groups reveals that climate change, climate finance, SDGs, SDG finance, global financial stability, international financial architecture, global economic recovery, and resolving issues posed by high global debt, are recurring themes across multiple groups and task forces. Past G20s have highlighted the need for customized responses to different national circumstances. Perhaps the complexity of determining appropriateness for innumerable circumstances and the multi-dimensional nature of projects that makes effective comparisons challenging are also significant friction factors slowing progress.

Return to global public goods

A key theme that has appeared during India's G20 presidency has been the need to once again promote the concept of global public goods. Mentioned frequently for India's contributions in the digital and financial inclusion domain, there have been some suggestions of applying the concept to simplify the international financial architecture's capacity to finance climate and SDG related projects.

> *"There have been suggestions of applying India's digital experience to simplifying the international financial architecture's capacity to finance climate and SDG related projects."*

Perhaps rather than increase complexity and customization there can be a radical simplification that improves comparability and drastically reduces cost of financing for any project that is recognized as a global public good. Can the G20 catalyze a new taxonomy and scoring system to provide a global public good score for any project? Can there be a clear case of win-win for both developed and developing nations rather than funding patterns being construed as just transfers of wealth and/or prosperity to the cost of one constituency and benefit of the other.

Clearly, if the benefits are global, but the costs are local, there could be many circumstances where global beneficiaries could contribute to reducing local costs and receive much greater benefit than the costs they bear.

Given the many, complex, and interrelated factors contributing to climate change, there is a strong case to be made that overall SDG progress is a key determinant of progress towards climate goals. However, it is also recognized that there is varying level of global public good benefit across SDG goals and in each SDG-related project and this has frequently become a cause of debate while being considered for financing by the GCF and other development finance institutions.

What if there was a single score provided for each project based on its global public goods content regardless of its geographical location? What if there was an entity ensuring that projects of similar global public goods score were credit enhanced to provide similar cost of capital regardless of their geographic location? That the higher the global public good of a project, the lower its cost of capital? Would that not accelerate global public good projects across climate-related and other SDG goals? Would not the credit enhancement by this entity crowd in the tremendous amount of private investable capital that the pension, retirement, wealth, and other large funds have that dwarf the balance sheets of development financial institutions?

"What if there was a single score provided for project based on their global public goods content regardless of geographical location? That the higher the global public good of a project, the lower its cost of capital? Could this entity's credit enhancement crowd in the tremendous amount of private investable capital?"

A new climate fund

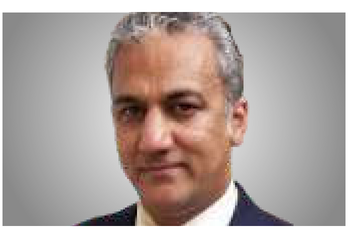
The credit enhancement entity could be structured as a fund where the sovereign contributions could be a factor of both the size of the economy and the per capita GDP. A larger economy would likely have a greater value of projects benefiting from the credit enhancement while the higher per capita GDP

would have a higher ability to pay relative to the benefits received from the global public goods, usually reflected in a higher cost of living.

The important factor would be that both developed and the developing large economies should get greater benefit than the cost they bear. If the fund is structured suitably, that will indeed be the way, as the vast majority of economic growth over coming decades is expected from developing countries. It is best for all involved if this growth is far more sustainable and with a much lower carbon and contamination footprint than the path taken by current OECD members during their industrialization as well as recent industrialization stories.

A COP27 report commissioned by the Governments of Egypt and Great Britain, published late last year, calls for annual investments in emerging market and developing countries other than China, to cut emissions, to boost resilience and deal with the loss and damage caused by climate change impacts, and to restore nature and land, should exceed $2 trillion by 2030. It appears highly improbable that this level of investment can be attained using existing pools of purpose-specific capital resources at development financial institutions or at the current cost of capital to emerging market and developing countries.

India's G20 presidency may be the forum where progress can be accelerated across several climate and broader SDG agendas by simplifying and unifying solutions for global public good. One Earth. One Family. One Future.



Ajit Pai

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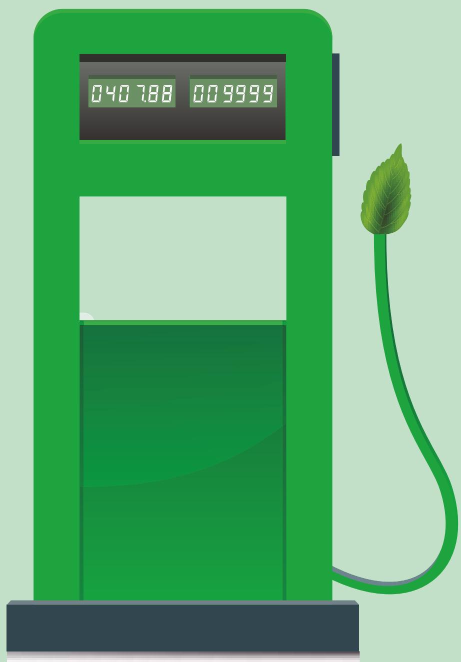
Politics and the Fuels of the Future

By Arunabha Ghosh



The energy trilemma — access and affordability, security, and sustainability — is not restricted to oil, gas or coal alone. Critical energy resources now include solar panels, wind turbines, batteries, green hydrogen electrolysers, critical minerals, and the embedded components in these products. A shift towards a cleaner energy system will create new centres of power in global energy markets as well as new vulnerabilities.

In navigating the here and now energy crisis while promoting a more secure clean energy future, India's G20 presidency must seek principles and partnerships over the fuels of the future.

In 2022, energy security, the climate crisis and geopolitics converged. Following a period of tightening energy markets, the Russia-Ukraine conflict triggered a global energy crisis, resulting in record-high natural gas prices and the highest oil prices since 2008. At the same time the climate crisis became more prominent. Hurricane Ian caused $ 50-65 billion of insured losses, the second highest in the history of the United States (after Hurricane Katrina in 2005). Historic floods in Pakistan resulted in an estimated $ 14.9 billion in damages and $ 15.2 billion in economic losses. Forest fires that swept the European Union were the second worst recorded, scorching at least 8600 sq km by October 2022.

But multilateralism remained strained, with tensions between the West and Russia and between China and the US adversely impacting everything from global supply chains to the outcomes of the G20 summit in Bali, Indonesia, last year.

> *"A shift towards a cleaner energy system will create new centres of power in global energy markets as well as new vulnerabilities."*

Amid the urgency of ongoing crises in fuel, food, finance, and fever (thanks to the Covid-19 pandemic), it is tempting to overlook the important. Globally, carbon dioxide emissions must halve by 2030 and reach net zero by 2050 to limit global surface temperatures to within 1.5 o C above pre-industrial levels. Whereas the EU and the US have promised to reach net zero by 2050, China aims for 2060. These dates are not insignificant: If China, the EU and the US brought their net zero years forward by a decade each, it would release about 114 gigatonnes of carbon space, saving a staggering 28.5% of the global carbon budget for other economies to consume on their path to economic development.

Net zero dates

India's net zero goal (although later in 2070) would yield 59% lower cumulative emissions (1850-2100) than China, 58% lower than the US and 49% lower than the EU. It would also be the fastest transition from peaking (around 2040) to net zero of any major economy. For all major economies, and particularly for fast growing emerging economies, the pathway to net zero would need an economic transformation, not just an energy transition.

It is this convergence of the urgent and the important agendas that will determine the governance (or not) of the energy fuels of the future. Within a changing climate and changing geopolitics, the definition of energy security has now evolved. Energy security is the availability of adequate quantities of critical resources, at prices that are affordable and predictable, with minimum risk of supply disruptions, to ensure sustainability for the environment and future generations. Whereas historically economies focused on supply shocks and energy prices, the shift towards sustainable energy sources and embedded critical resources have added new layers to the energy equation.

The fuels of the future will impact global energy markets in three ways: scale, investment, and geography. Fossil fuels still account for about 80% of global energy supply. The move to net zero energy systems will mean that solar, wind, bioenergy, geothermal and hydro energy would have to

supply two-thirds of global energy needs. In absolute terms, solar photovoltaic (PV) capacity alone must increase 20-fold by 2050 and wind capacity 11-fold.

"The fuels of the future will impact global energy markets in three ways: scale, investment, and geography."

It's useful to understand the scale of transformation from the point of view of India. In 2010, it had less than 20 MW (megawatts) of solar capacity. By 2022, capacity had grown 3100 times to 62000 MW. But for net zero, India's solar capacity must grow 90-fold to 5,630,000 MW by 2070. This is a money, manpower and mostly materials challenge. With 80% of solar panels currently imported, India will be wary of this level of energy dependency and vulnerability as its solar sector grows exponentially.

Clean energy investment also must grow exponentially. In 2022, clean energy investment was $ 1.5 trillion compared to $ 1 trillion in fossil fuels. The International Energy Agency estimates that the ratio of must rise to 9 to 1, i.e. $ 9 trillion of clean energy investment by 2050. In 2020 prices India, by itself, will need $ 10.1 trillion by 2070 for renewables, electric mobility and green hydrogen.

Emerging energy markets

These shifts will disrupt fuel and financial markets even as the geography of energy trade changes dramatically. Emerging markets will account for 88% of new electricity demand over the next two decades. This growth will also shift the balance of power away from oil and gas exporters.

Among emerging energy markets, they are broadly four key groups:

- China which is nearly half the electricity demand, and 39% of the expected growth
- Other importers of coal and gas such as India or Vietnam which are a third of the demand and will constitute nearly half the growth

- Coal and gas exporters such as Russia or Indonesia which are 16% of demand but will provide only around 10% of electricity demand growth
- "fragile" states such as Nigeria or Iraq, which are 3% of demand and about the same share of growth.

It is evident that deeper integration into global energy markets will be a feature of economies like India's, which have been relatively autarkic in the past and have played a marginal role in shaping market dynamics. Their rapid shift towards clean energy sources will depend on how secure or insecure they feel during this period of uncertainty.

One mitigating feature about fuels of the future is their geographical spread. Renewable energy sources are more widely distributed than fossil fuels, with developing countries having 140 times more resources than their current energy demand. Greater electrification of economies and the shift towards renewable energy is desirable for the planet and a source of energy security. This includes solar in India, wind in Viet Nam, or biofuels and hydropower in Brazil. The move to clean energy could save millions of lives lost to fossil fuel pollutants, improve energy security for the 80% of people living in fossil fuel importing countries, and drive local job creation.

"The rapidity with which economies like India shift towards clean energy sources will depend on how secure or insecure they feel during this period of uncertainty."

But trade in renewable energy products has become increasingly concentrated. Five countries dominate more than 70% of solar PV, and four dominate wind gensets (>80%) and lithium-ion battery exports (>70%). New CEEW analysis, conducted for the G20, finds that the number of countries with concentrated sources of solar PV imports increased from 38 in 2012 to 71 in 2021. For lithium-ion batteries, countries with concentrated imports rose from 19 in 2012 to 49 in 2021.

Source: Shutterstock

Concentration levels — and thereby vulnerability — is particularly high for middle income countries, above 85% in most cases. Sudden restrictions in exports of clean tech can raise costs of deployment, increase grid instability, and threaten energy security overall.

Cold war over subsidies

Apart from physical disruption in supply chains, another concern is the emerging war over clean tech subsidies. In August 2022, the US Congress passed the Inflation Reduction Act, which includes $ 369 billion of federal investment in climate to promote green industries like renewables, nuclear and clean hydrogen. The EU's Fit for 55 programme plans a Social Climate Fund worth 72 billion euros (at least doubled with contributions from member states) to support citizens and small businesses move to clean energy.

In December, the European Parliament provisionally agreed on the final text for the Carbon Border Adjustment Mechanism, which would impose tariffs on imports from countries deemed as not acting aggressively on climate. If richer countries used their taxpayer money to reduce costs, everyone benefits. But the quid pro quo must be open and transparent markets.

However, the return of (green) industrial policy creates new kinds of energy security tensions. If a subsidies war unravelled into a wider trade war it could stymie investments in clean tech sectors.

Growing pressure on renewable energy supply chains and disruptions in critical minerals embedded in them would raise costs and increase inefficiencies without rules to ensure regular supply and better governance.

How green is my hydrogen

Perhaps the biggest challenge will emerge over green hydrogen. Green hydrogen can

become a critical industrial fuel of the 21 st century, aiding industrial growth and industrial decarbonisation simultaneously. In the case of electrolysers, which split water and make green hydrogen if the energy source is clean, capacity needs a quantum jump from 0.5 GW in 2021 to 3500 GW in 2050. So far, 38 countries plus the EU have declared hydrogen missions, programmes and projects. India's targets alone — 5 million tonnes by 2030, are the highest of any single economy and half of the EU's domestic production target for 2030.

However, a standards war — non-tariff barriers have long been a tool of industrial policy — could threaten the development of a global green hydrogen economy. Currently, there are no common standards for what constitutes

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green hydrogen, its transportation and storage. If market access is sealed off by rival standards, then it becomes a double whammy for emerging economies: not having the financial resources to subsidise new technologies, nor being able to export renewable energy derivatives such as green hydrogen.

> *"A standards war could threaten the development of a global green hydrogen economy. Currently, there are no common standards for what constitutes green hydrogen, its transportation and storage."*

Moreover, trade patterns are being designed on a bilateral basis currently. More than 60 bilateral agreements have emerged already and most focus on direct export-import relationships. Without an architecture of rules, vulnerabilities in green hydrogen will remain creating operational threats (lack of interoperable standards and universally accepted certification), competitiveness threats (subsidies, lack of transparency), and strategic threats (concentrated intellectual property, supply chain disruptions).

Energising commodities for batteries

The energy system of the future also needs batteries to recharge. CEEW analysis suggests that battery demand in the power sector will grow from 6 GW to 308 GW between 2021 and 2050; for transport, demand jumps from 340 GWh to 10400 GWh in the same period. One antidote to increasing concentration of lithium-ion battery supplies is innovation in alternative cell chemistries and battery technologies. Regardless, demand for critical minerals will rise two to four-fold by 2040.

The issue is not just finding new sources of critical minerals; it is also about investing in extraction capability. In the battery supply chain, it takes one to four years to develop battery cell manufacturing capability but six to 20 years to develop mineral extraction and processing capabilities. Mineral recycling could, instead, lead to new opportunities and new nodes of specialisation in a global circular economy of minerals.

Energy security for the future

Energy security in no longer a concern only for a handful of major economies, nor restricted to a few fuels. The global economy needs an energy security architecture that responds to the needs of the energy demanders of the future (namely, emerging economies) and the fuels of the future. In response to the above energy security concerns, India's G20 presidency can promote new energy principles and partnerships, via dialogue, diversification, definitions, and co-development.

First, there is need for more dialogue about the energy security concerns of different groups of countries (rich and middle income, energy importers and exporters). Open and frank dialogue rests on open and transparent markets.

"There is need for more dialogue about the energy security concerns of different groups of countries such as rich versus middle income, energy importers versus exporters."

The first priority is to ensure comprehensive tracking of global renewable energy manufacturing capacity and trade flows to inform the expansion and diversification strategies and foster competition in trade. There is a role here for multilateral institutions: United Nations Statistics Division can identify ways to record robust trade data; and the UN Industrial Development Organisation can track and publish current and future manufacturing capacities. As part of the dialogue, developing countries and emerging economies should ask how they can maintain and enhance their competitiveness in future value chains.

Secondly, G20 members would benefit from new avenues of supply to meet the increasing demand for clean technologies. The diversification in clean tech supply chains needs: Increased investment (supporting by multilateral development banks and institutional investors); handbooks and digital learning to train workforces; the UN Conference Trade and Development can assess challenges and opportunities for digital trade solutions, and preparedness of ports; and the promotion of circular economy principles, especially for minerals and repurposing materials for clean energy infrastructure.


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Thirdly, new energy technologies need clearer definitions and fewer non-tariff barriers. Technical committees of regulators, standards bodies, and industry could define universally acceptable definition for green hydrogen and derivatives, and harmonise and co-develop standards, protocols and certification systems.

Fourthly, co-development of clean technologies has strategic value. For emerging markets, it gives them an opportunity to pool resources, co-own clean tech intellectual property, and coordinate green procurement policies to benefit from economies of scale. For developed countries, technological innovation is faster when they are designed for and tested for markets where energy demand is rising, while diversifying supplies.

Fifthly, the G20 can trigger partnerships. Having co-created the International Solar Alliance with France since 2015, India, Brazil and the US are now promoting a Global Biofuels Alliance via the G20.

If India's presidency develops rules/norms for green hydrogen, in subsequent years a Global Green Hydrogen Alliance could become another major milestone.

As the energy transition gains momentum, there is a growing risk of weaponisation of energy, resources and minerals, emerging islands of regulation, and mercantilist control over new technologies. The fuels of the future might be clean; the politics and trade surrounding them need not be so. The global energy crisis of 2022 serves as a reminder that increasing concentration of energy supplies and lack of rules can undo decades of investment in energy infrastructure. A more resilient clean energy future cannot rest on hoping for the best, but preparing for the worst.

Arunabha Ghosh

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New Digital Money Disorder

Douglas W. Arner

Technology is fast reshaping international and domestic monetary and payments systems. Notable developments include the launch of Bitcoin in 2009, the announcement of Facebook's Libra / Diem cryptocurrency proposal in 2019 and China's ongoing development of its Digital Yuan. The potential of technology to upend the existing international monetary and payment system has come into ever sharper focus since the start of the Russia-Ukraine war in February 2022.

While money, payments and technology have always evolved in tandem, the pace of development has accelerated as a result of digitisation and the application of new technologies to money and payments over the past several decades. This has moved from the establishment of SWIFT and major electronic payment systems in the 1970s to widespread implementation of RTGS (real time gross settlement) systems across the G20 during the 1980s and 1990s and more recently the development of mobile payments (particularly mPesa, Alipay and PhonePe), cryptocurrencies such as Bitcoin, fast payment systems including UPI and PIX, and most recently central bank digital currencies.

This technological revolution in money and payments has transformed financial systems in major emerging markets including China, India and Brazil, bringing hundreds of millions of people into the financial system for the first time. Covid-driven digitisation of payments has accelerated this evolution and highlighted its benefits from the standpoint not only of inclusion but also of resilience to sustainability and other crises.

Libra drives change

The Facebook Libra proposal drove a coordinated international response led by the G20 to build appropriate regulatory systems for non-state-issued monetary instruments, particularly those which could have global reach, "global stablecoins". But it also highlighted the potential of technology to build not only better domestic monetary and payment systems, but also to build better – safer, more efficient, more inclusive – cross-border payments systems.

The proposal also highlighted the possibility of using technology to redesign regional and international monetary arrangements in the context of CBDCs (central bank digital currencies). The G20 – under the Saudi Arabian presidency – made enhancing crossborder payments a major objective going forward.

"The digital technological revolution in money and payments has transformed financial systems in major emerging markets including China, India and Brazil."

Into this environment, the widespread use of financial and monetary sanctions in response to the Russia-Ukraine war – what is often called "weaponization of finance" – has driven countries to consider the potential for building alternative crossborder payment arrangements. These sanctions include restrictions on making payments in the US dollar or euro including by major international payment systems (such as SWIFT) and on doing business with sanctioned parties. The EU, US and others also restricted transactions with the Central Bank of Russia and froze some US$300 billion of its foreign exchange reserves with the aim of crippling Russia's military efforts and economy.

This raises a range of questions central to the future of global finance and geopolitics including whether this strategy will work, and whether it will drive other nations away from the existing US dollar-based international monetary and payment system.

Tech and payments

In a recent Asia Global Institute paper, we consider these questions by analysing the geopolitical and strategic dimensions of how technology is reshaping the international monetary and payments system. While Bitcoin and its thousands of progenies could be ignored safely except for their financial crime impacts, Facebook's proposal for Libra – the first global stablecoin – brought an immediate and potent regulatory response globally.

In terms of monetary history and the role of technology, the announcement of Libra is a key date, regardless of whether it ever actually comes into existence, which now looks highly unlikely. This proposal by a private technology firm to move into the traditional preserve of sovereigns – the creation of money – was always likely to trigger both a strong regulatory response and the launch of rival CBDCs. China moved first with its Digital Yuan (eCNY) – an initiative that has provoked a chain of CBDC projects around the globe. In turn, the Covid-19 pandemic has driven digitalization to new heights, particularly in electronic payments.

"In terms of monetary history and the role of technology, the announcement of Facebook's Libra is a key date. It led to both a regulatory response and the launch of new digital currencies."

Into this environment, the response to Russia's invasion of Ukraine led by the United States and Europe – which has so far focused on weaponizing the existing international monetary and payments system – has highlighted both the power of these Western-led systems and the potential risks of using them. While there have been many calls for the end of dollar hegemony, this latest chain of events has provided powerful motivation for economies – both friend and foe of the US and EU – to build alternative systems to insulate themselves from the risks of dependence on the current architecture.

A clear path toward this could be provided by the development of CBDCs. While China's eCNY was originally developed with a mostly domestic focus, we foresee that its eventual release beyond China will be the catalyst for most major economies – and many others – to issue their own CBDCs. This will become necessary as nations strive to retain and strengthen their monetary, financial and economic sovereignty through technology.


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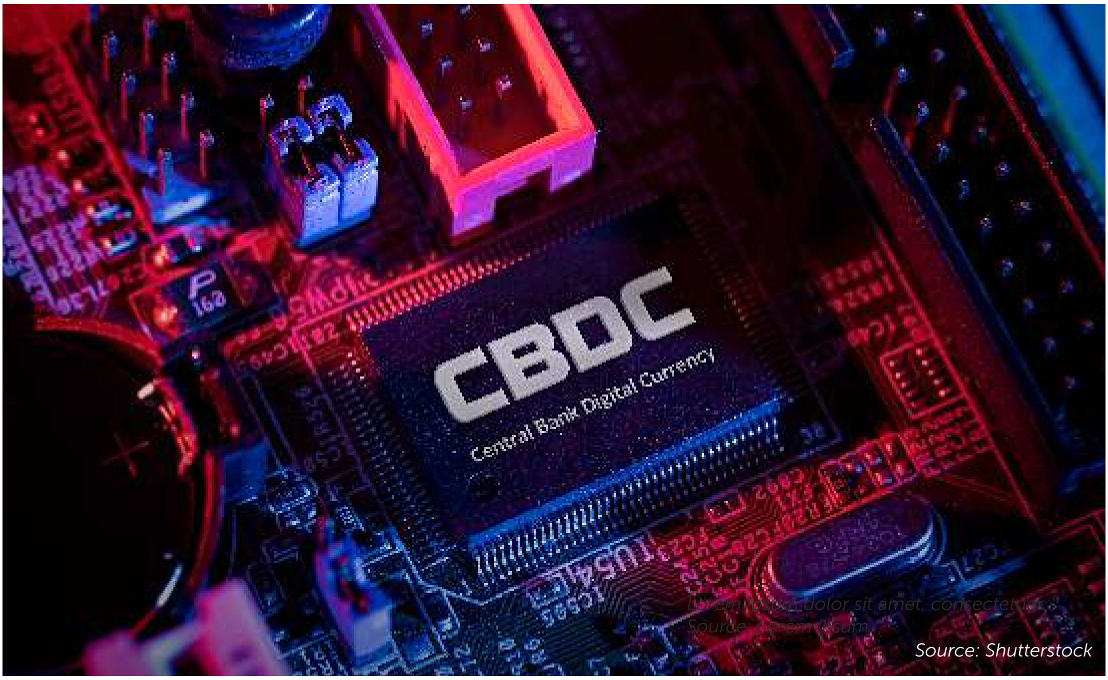

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Geopolitical fragmentation

Looking forward, competing major currency CBDCs useable via competing payments systems could present a major risk of currency substitution. Such a pattern would reduce the role of the dollar, reinforcing an existing trend, but new networked frameworks for cross-currency payments between major monetary systems could in fact make it convenient to use a small number of currencies, rather than the traditional outcome of international monetary hegemony.

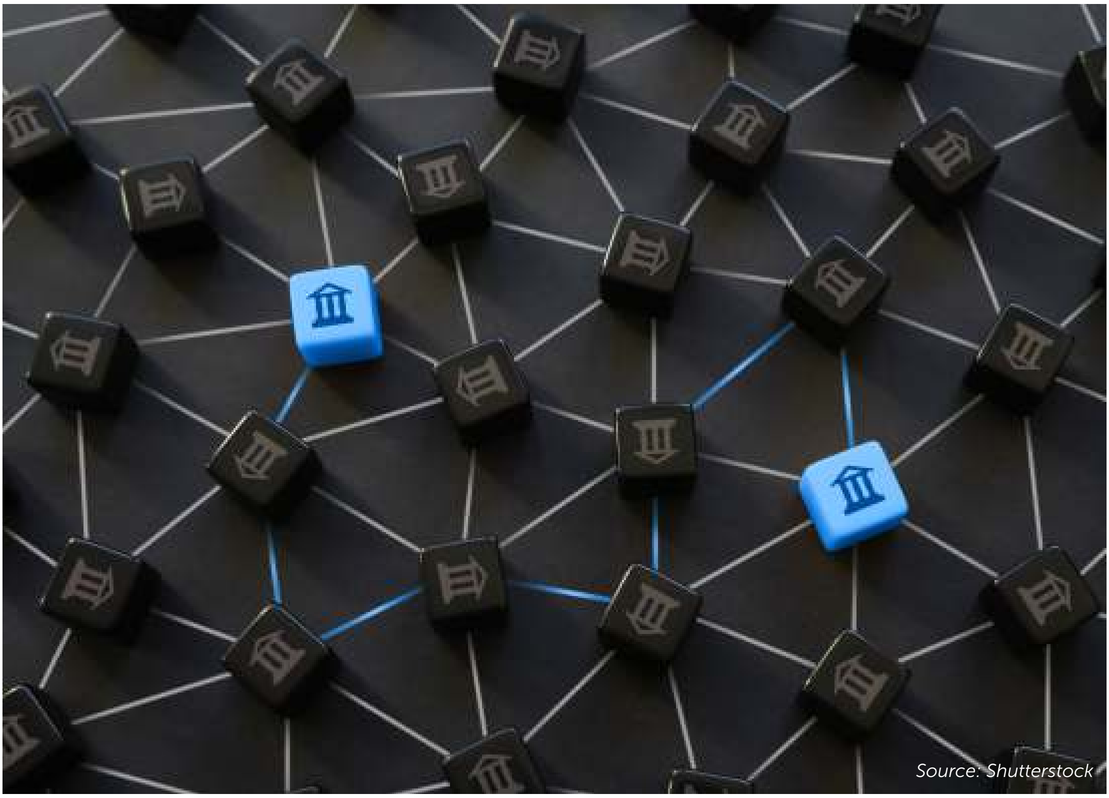
While it is now possible to build a global technological framework for money and payments, unfortunately the geopolitics of a multipolar world – coupled to the evolution of enabling technologies – will not result in the birth of a new international monetary system. Instead, we are likely to witness the rise of a smaller number of major power / major economy central bank digital currencies and largely separate currency areas.

The catalysts of technology, Libra, the Digital Yuan and Covid-19 were already causing major changes in the money and payments system across the world before Russia invaded Ukraine. However, the combination of new technologies and increasingly tense geopolitics represents a real threat to existing payments infrastructure and provides a great impetus for payment systems to evolve dramatically, quite probably towards a multipolar system that will be more fragmented and less efficient than what we have today.

> *“We will witness the rise of a smaller number of major power central bank digital currencies and largely separate currency areas.”*

These developments also represent, for the US, a real and present danger to the dominance of the US dollar in international trade and finance and the consequential loss of the numerous benefits that flow to the US from the current system.

We conclude by suggesting that even if it is not possible to redesign international monetary and payment arrangements as a universal



public good, it may well be time to look closely at developing an appropriate framework for interconnection among nations limiting the weaponization of the digital monetary, payments and financial systems. The G20 is one among many multilateral forums where this conversation can begin. The fragmentation of our current system will be highly inefficient and in the end will likely make everyone poorer.

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Global South is More Than Rhetoric

Gurjit Singh

If a number of things were to fall the right way, India's presidency of the G20, with iit's open-hearted theme Vasudhaiva Kutumbakam could truly lead to one Earth, One Family, One Future. This is celebrated in a diverse and non-traditional manner.

There are some who believe that too much is being made of the G20. Whereas other countries have quietly and functionally handled their presidencies, India believes that celebrating the G20 Presidency in many ways brings together India as a whole into the marking of the event. This inclusivity of the whole country is also marked by a whole-of-Government approach rather than leaving it only to the ministries of finance and external affairs. The fulsome manner in which the G20 is converted into an exposition for the human good and pursues a Lifestyle for Environment (LiFE) is quite interesting.

India's presidency is at a time when the world is wracked by big power rivalry extending into a war in Europe. It is marked by protectionism rising from the economic downturn which followed the padlocks introduced ostensibly to deal with the Covid pandemic. Globalization, which was promised by the developed countries as having benefits for all, is being put to the test. It was left to emerging countries to actually speak up for globalization consequent to the Ukraine crisis, the slow post-pandemic recovery. It was a period that saw the breach of supply chains of energy, food and fertilizer.

The consequences of the Ukraine crisis derailed the post-Covid recovery that many developing countries had been counting on. Instead what happened was that the developing countries faced unprecedented disruption of their economies, economies which had already had to divert substantial resources to dealing with the pandemic.

As International Monetary Fund's (IMF) Managing Director Kristalina Georgieva said, "We count a lot on India's leadership of the G20. Because it is such a critical time for the world to protect its own well-being by protecting the integrated global economy. I hope that India will do that huge global service of keeping us together."

Issues at the fore

Thus issues like debt relief, public health, new supply chains which would not be damaged by strategic differences and a greater dependence on the resilient value chains among dependable countries came to the fore.

The inability of the Bretton Woods institutions to fully deal with the growing demands on them was acutely felt. The attention of the Bretton Woods institutions was redirected to Europe, which is in the midst of an unending war. Developing countries have a further problem of a lack of attention on their hands.

For some decades, the developing countries and the global south have been neglected by the international order. At the very least, that perception is now overwhelmingly common. Already wary of the dominance of the Bretton Woods institutions, the creation of new China-led institutions like the New Development Bank (NDB), and the Asian Infrastructure Investment Bank (AIIB) have not assuaged their concerns.

The China led Belt Road Initiative, which partly utilised the avenues of the NDB and the AIIB but was largely handled by institutions like Beijing's own Export-Import Bank of China and the China Construction Bank, also created problems of debt and a lack of imagination in planning large projects. Thus, between the lending of the traditional multilateral development banks (MDBs) and the Chinese state-owned banks, the Global South was more or less strangled in red ink and the pandemic helped bring out that realization.

"For some decades, the developing countries and the global south have been neglected by the international order."

At the same time, the United Nations has had its own crises of confidence. Whether it is the World Health Organization and its highly criticized handling of the pandemic, the World Trade Organization and its inability to deal with trade problems in a meaningful manner, or the Security Council failing to maintain peace and security, there is little positive to say about the UN.

The UN Security Council has taken to repeatedly putting the onus on regional organizations like the African Union for the Tigray and other crisis and Association for Southeast Asian Nations for the Myanmar crisis, not because they respected the regional institution but because they could not build a consensus among themselves on what to do. The hectoring of the big powers has led to the Security Council being paralyzed.

In all these international institutions, the Global South had the opportunity to speak but was rarely heard, and often kept out of important decisions whether they be on climate finance, terrorism, migration, debt relief, or the maintenance of international peace and security. The international order was meant to empower countries and peoples; the way it has operated is to marginalize them further.

The G20 in its present form is an organization which emerged from the 2008 financial crisis and allowed a larger number of influential countries to start managing global matters. The China-US rivalry, followed by the Ukraine crisis, have contributed to making the G20 ineffectual even though it is supposed to be largely economic body. This means that when crises hit the world today, there is no single body to whom the globe can turn to create a consensus on how to proceed. The middle ground, and along with it the Global South, is now a policy wasteland.

In November 2022, Cambodia chaired the East Asia Summit and could not persuade the major powers to issue a joint statement. This rang alarm bells. This led to fears that the G20 summit in Bali, Indonesia, would also be similarly disengaged. If strategic reasons could derail such a summit, the consensus required to implement more functional features of the G20 would also be unsuccessful. Therefore, managing differences to ensure that the middle ground is reclaimed became the primary goal of the Bali G20. The manner in which Indonesia led that, with the support of India and other countries of the Global South within the G20, was an amazing rescue act. When India assumed the G20 chairmanship, the globe looked to it to retain the middle ground, keep trying for a consensus, and make the G20 respond to global crises rather than fall victim to it.

Southern voice

A year since the Russia invasion of Ukraine, India is in the last few months of its G20 presidency. Its main feature has been that it has brought forth the voice of the Global South. It continues to pursue a major agenda for the globe and yet not allow differences over Ukraine to be destructive of the process.
This opening up of space means that India can speak more confidently about its agenda. To buttress that, it has done several things to involve the Global South who have become the victims of the global disorder. First, its list of guest countries who are invited to the G20 Summit includes Bangladesh, Egypt, Mauritius, Netherlands, Nigeria, Oman, Singapore, Spain and the United Arab Emirates. This shows a clear preference for countries of the Global South who could play a role in their regions and understand the policies important to the lower income nations.

Secondly in January, by holding the virtual summit for the Voice of the Global South, it brought together 125 countries to consult with them on a series of subjects. This engagement was not only at the level of leaders and foreign ministers, but through functional ministries. This consultative process, for the first time, brought almost every country of the Global South into the process of the G20 which otherwise was becoming restrictive. India's promise to its partners in the Global South always has been to work with them for a better place in the international order. Through this and its G20 presidential priorities, India is attaining this with a degree of significance. This is among the most salient features as countries of the Global South feel they are more involved in the G20 process, their priorities heard, and their apprehensions understood.

India's initiative to seek to widen the membership of the G20 by inviting the African Union as a member rather than a guest is perhaps the most vigorous effort to have 54 countries of the Global South brought in at one stroke.

India has honed this process through its long-standing, 75 years of engagement with countries of the Global South. Well before the Bandung Conference in 1955 India had engaged with the newly emerging countries. Subsequently, India was among the leaders of the nonaligned movement, the Group of 77 and in the current century, had successful partnerships with Africa, the Caribbean, the Pacific, ASEAN and Central Asia.

Through such functional summits, India understood and addressed the particular

requirements of each region. This provides India the confidence that the acceptance of its model of development cooperation by its partners in the Global South gives it a unique position to hear them and voice their concerns and priorities. The inclusiveness that India has aimed at within itself domestically, is also pursued internationally.

What will India do to address this reprioritization that the Global South seeks? India knows that it cannot run away with the G20 agenda. All members of the G20 being equal, and some having larger economic heft, can play a role to direct the G20 as per their priorities. India's aim is to adjust those priorities by adding those relevant to the Global South. This has been a feature of India's G20 working groups and meetings held on different subjects over the recent months.
India seeks to modulate these priorities through the G20 to realistic and preferred goals. To meet these requirements has required deft handling as the ministerial meetings that started to take place from late February2023 has shown. Important and divisive issues come forth and these require to be addressed not in a sense of bickering or complaint about non-fulfilment of earlier promises. India's diplomatic stance is to provide ideas for engagement in a fruitful manner, in which it unhesitatingly puts forth its own achievements in various fields.

“India's aim is to adjust the priorities of the G20 members by adding those relevant to the Global South. This has been a feature of India's G20 working groups and meetings.”

Sectoral issues

Many countries in the Global South have seen India as a positive model for plural, democratic, development. They appreciate India's strategic autonomy too. They believe they can emulate India. Its new achievements during the pandemic and thereafter have accentuated that respect. India posits these into the G20 process and offers them as examples of impactful development.

There are several important aspects among many sectoral issues that India supports while seeking a wider vision for the G20.

The first is the sustainable development goals (SDGs) which need greater momentum and can draw investment at the ground level. The development of impact investment is the base of India's triangular cooperation efforts in Asia, Africa, and Latin America, both in the private sector and through the Government. Funds with G-7 countries such as the UK, France, Germany, Netherlands and Japan, besides the European Union, have taken slow steps towards contributions, which are delivered by Indian fund managers from the public and private sectors for impact investing in India, its neighbourhood and Africa. The India-German Sustainability Development Cooperation is developing such projects in Peru, Cameroon, Ghana and Malawi, while the UK and the Indian ministry of external affairs have established a fund for similar purposes.

A new working group on disaster risk reduction will be established under India's presidency to encourage collective work by the G20, undertake multi-disciplinary research and exchange best practices on disaster risk reduction. The recent disasters in Turkey and Syria showed that existing responses are inadequate and whenever a disaster strikes quick response and for humanitarian assistance and disaster relief is imperative. The creation of a "loss and damage" fund at COP 27 in November 2022 for vulnerable countries hit hard by climate disasters is good intent without substance.

India's inaction regarding prompt responses to Turkey and Syria through its National Disaster Management Agency and National Disaster Response Force showed that example is more important than precept.

The Coalition for Disaster Resilient Infrastructure is a partnership among Governments, UN bodies, MDBs, financing mechanisms of the private sector, and thought institutions which aims to promote the resilience of infrastructure systems to climate and disaster risks in support of sustainable development. This Indian initiative can be scaled and expanded to be a fast responder as well as support for adaptation.

Banks and more banks

Dealing with debt stress in the developing countries is of great importance. The MDBs

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and the BRI are both responsible for such stress and do not agree on how to conclude a lot of debt in the South. Debt writes off in 2003 under the Evian Approach were without China which was not a major lender then. Chinese's lending practices, initially seen as helpful, became unpredictable and less helpful to the overall development of the borrowing countries. The mutual blame game between the MDBs and China needs to be addressed so that debt stress can be relieved. India itself may have to roll over or write off some $32 billion in loans to several countries.

The first G20 finance ministers and central bank governors meeting on 25 February 2023 in Bengaluru, looked at addressing these concerns. Strengthening multilateral development banks to be responsive to shared current global challenges, financing for resilient, inclusive and sustainable development, leveraging digital public infrastructure (DPI) for enhancing financial inclusion and productivity gains were among their priorities.

Some solutions to this could include the denomination of India's trade, investment and lending to countries of the Global South in rupees rather than denominated in hard currencies. The increasing acceptance of the rupee, most recently for individual trading across with Singapore, is useful for India to engage with their partners abroad. More such initiatives would be required. The issue of climate finance is a major concern as repeated assurances to help developing countries have not been fulfilled. It is evident that the strategy to keep negotiating for greater contributions by the OECD countries is not a successful one. They did not comply with their own norms of ensuring 0.7% of their GDP would be spent on overseas development assistance; to expect them to fulfil further commitments is unrealistic.

Yet to deal with climate adaptability and mitigation requires immense funding. Here India could try and use hybrid solutions where smaller funds are collected and leveraged through international markets to generate a larger fund for implementing sustainable projects. Hybrid finance with adequate guarantees and more participative involvement of the host country could be a way forward. This is still nascent, but there are ways to do this which are now under discussion.

A recent effort saw an Indian platform seek to help Indian "smallholder farmers leverage climate/carbon finance for sustainable agro-forestry, climate smart agriculture and other activities that can result in carbon sequestration and mitigation". The platform coalesces to about a million small farmers who will obtain support and training for climate smart agriculture and agro-forestry.

The just energy transition could in parallel with LiFE bring sustainability into lifestyles. This will improve human life and its quality and protect communities and countries from the growing challenges that they face.

Another important area is the digital economy. Dealing with digital public infrastructure, cybersecurity solutions for medium-small and micro enterprises, SDGs and the use of geospatial technologies are under discussion. India can use mechanisms for a digitally-skilled future-ready workforce which would help to implement the Industrial Revolution 4.0 and beyond. Therefore, digital public infrastructure, cybersecurity of the digital economy and digital skilling are essential priorities. Besides, many projects, for instance, renewable energy, lack the local manpower for implementing, running and maintaining them. This is true over a range of projects that are already implemented or are in the pipeline. Training efforts should be focused on the priorities set by this coalition of the Global South to create skilled workforces in the Global South.

"Digital public infrastructure, cybersecurity of the digital economy and digital skilling are essential priorities for future development."

Should the Global South not aim to help itself rather than cry hoarse over unfulfilled expectations from others? The Global South should have its own Self Help Fund. The impact investment movement, where the Indian impact investing model is a good example that could be expanded. It attracts investors from the G-7 and beyond. Its project implementation is effectively undertaken among developing countries. The main focus here is to have priorities directed by India and the main countries in the Global South like Indonesia, South Africa and Brazil who will contribute to, manage and direct the funds activity. Other G20 members and beyond would be welcome to contribute to their Self-Help Group for the SDGs but priority setting and project approval will be by the Global South Countries India must seriously pursue its limited but impactful Global South initiative.

Gurjit Singh

Gurjit Singh is the former Indian ambassador to Germany, Indonesia, ASEAN, Ethiopia and the African Union.

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