

DEVELOPING SPACE SECTOR

The Indian National Space Promotion and Authorization Center (IN-SPaC) was established by the Indian government to foster the growth and development of the Indian space sector, with a specific focus on promoting private sector participation and enabling a more commercially-driven space industry.

Formed in 2020, IN-SPaC operates as a facilitative and regulatory body under the Department of Space (DOS) and is a critical part of India's space sector reforms.

IN-SPaC is designed to act as an intermediary between the Indian Space Research Organisation (ISRO) and private sector players. The primary goal of IN-SPaC is to create a level playing field for private companies by providing a transparent regulatory framework that simplifies the process of collaboration with ISRO, allowing them to utilize space infrastructure and services for various commercial and scientific purposes.

IN-SPaC aims to encourage private companies to engage in space activities like satellite launches, communication services, and research. By facilitating industry participation, IN-SPaC seeks to boost innovation and make India a key player in the global space economy.

IN-SPaC authorizes the private sector to use the nation's space infrastructure, such as launch pads, tracking stations, and satellites, and ensures that their activities comply with legal and safety standards. It also ensures that space missions follow the necessary regulatory requirements, both for national security and space safety.

Through the development of an open and transparent policy, IN-SPaC facilitates the innovation of new technologies, services, and space missions by enabling private companies to enter the space sector without having to go through cumbersome bureaucratic processes. This also includes helping startups and emerging businesses build their capabilities in the space domain.

ISRO, which has long been the backbone of India's space endeavors, is responsible for the execution of missions and the development of advanced space technologies. IN-SPaC works closely with ISRO to leverage its resources and infrastructure while ensuring that private sector players also get the opportunity to develop and launch their own space-related products.

IN-SPaC provides private companies access to ISRO's launch vehicles and associated facilities, enabling private firms to launch satellites into space. For instance, private companies like **Skyroot Aerospace** and **Agnikul Cosmos** have been working with IN-SPaC for launching their own small satellites and rockets, thereby contributing to India's growing space economy.

IN-SPaC plays a significant role in creating a conducive environment for startups by providing them with support, resources, and a regulatory framework.

Empowering a generation of India's dreamers

■ NARENDRA MODI



It has been a month since Shri Ratan Tata Ji left us. From bustling cities and towns to villages, his absence is deeply felt across every segment of society. Seasoned industrialists, budding entrepreneurs and hardworking professionals mourn his loss. Those passionate about the environment and devoted to philanthropy are equally saddened. His absence has been deeply felt not only across the nation but also around the world.

For the youth, Shri Ratan Tata was an inspiration, a reminder that dreams are worth pursuing and that success can coexist with compassion as well as humility. For others, he represented the finest traditions of Indian enterprise and a steadfast commitment to the values of integrity, excellence and service. Under his leadership, the Tata Group ascended to new heights, embodying respect, honesty and credibility worldwide. Despite this, he wore his achievements lightly, with humility and kindness.

Shri Ratan Tata's unwavering support for the dreams of others was one of his most defining qualities. In recent years, he became known for mentoring India's StartUp ecosystem, investing in many promising ventures. He understood the hopes and aspirations of young entrepreneurs and recognised the potential they had to shape India's future. By backing their efforts, he empowered a generation of dreamers to take bold risks and push boundaries. This has gone a long way in creating a culture of innovation and entrepreneurship, which I am confident will continue to positively impact India for decades to come.

He constantly championed excellence, urging Indian enterprises to set global benchmarks. This vision, I hope, will inspire our future leaders to make India synonymous with world-class quality.



His greatness was not restricted to the boardroom or helping fellow humans. His compassion extended to all living beings. His deep love for animals was well-known and he supported every possible effort focused on animal welfare. He often shared photos of his dogs, who were as much a part of his life as any business venture. His life was a reminder to us all that true leadership is measured not just by one's achievements, but by one's ability to care for the most vulnerable.

For crores of Indians, Shri Ratan Tata's patriotism shone brightest in times of crisis. His swift reopening of the iconic Taj Hotel in Mumbai after the 26/11 terror attacks was a rallying call to the nation-India stands united, refusing to yield to terrorism.

On a personal note, I had the privilege of knowing him very closely over the years. We worked closely in Gujarat, where he invested extensively, including in many of the projects was very passionate about. Just a few weeks

ago, I was in Vadodara with the President of the Government of Spain, Mr. Pedro Sánchez and we jointly inaugurated an aircraft complex where C-295 aircrafts would be made in India. It was Shri Ratan Tata who started working on this. Needless to say, Shri Ratan Tata's presence was greatly missed.

I remember Shri Ratan Tata Ji as a man of letters-he would frequently write to me on various issues, be it matters of governance, expressing appreciation for government support, or sending congratulatory wishes after electoral victories.

Our close interactions continued when I moved to the Centre and he remained a committed partner in our nation-building efforts. Shri Ratan Tata's support for the Swachh Bharat Mission was particularly close to my heart. He was a vocal advocate of this mass movement, understanding that cleanliness, hygiene and sanitation are vital for India's progress. I still remember his heartfelt video message for the Swachh Bharat Mission's tenth anniversary at the start of October. It was among his final public appearances.

Another cause close to his heart was healthcare and especially the fight against cancer. I recall the programme in Assam two years ago, where we had jointly inaugurated various cancer hospitals in the state. In his remarks that time, he had categorically stated that he wishes to dedicate his final years to healthcare. His efforts to make health and cancer care accessible and affordable were rooted in a profound empathy for those battling diseases, believing that a just society was one that stood by its most vulnerable.

As we remember him today, we are reminded of the society he envisioned-where business can serve as a force for good, where every individual's potential is valued and where progress is measured in the well-being and happiness of all. He remains alive in the lives he touched and the dreams he nurtured. Generations will be grateful to him for making India a better, kinder and more hopeful place.

(The writer is Prime Minister of India).

Strategic Balancing: Trump's Second Term and India's Role in the Indo-Pacific
The Indo-Pacific in a Changing Global Landscape

■ PANKAJ SHARMA

The Indo-Pacific region has emerged as the focal point of global geopolitics, with major powers vying for influence in its strategically significant waters. As the potential for a second Trump administration looms on the horizon, the world is closely watching how U.S. foreign policy might evolve, particularly in this critical region. The Trump administration, during its first term, significantly pivoted towards the Indo-Pacific, reshaping the U.S.'s strategic alliances to counter China's growing assertiveness. India, as a key player in the region, stands at a pivotal juncture where it must recalibrate its foreign policy to align with the renewed U.S. focus on the Indo-Pacific.

This article explores how a second Trump term could impact the Indo-Pacific strategy, the prospects for deeper U.S.-India collaboration, and the implications for regional security, economic interests, and the balance of power.

The Indo-Pacific Strategy: From Concept to Reality

The Trump administration's Indo-Pacific strategy was rooted in the principles of a "free and open Indo-Pacific," focusing on security, economic partnerships, and countering China's influence. By promoting the Quadrilateral Security Dialogue (Quad) - a strategic forum involv-

ing the U.S., India, Japan, and Australia - Trump sought to build a coalition of like-minded democracies committed to upholding the rules-based international order.

Strategic Containment of China: The Trump administration's hardline stance on China, particularly in response to its aggressive military posturing in the South China Sea and its Belt and Road Initiative (BRI), has been a defining feature of U.S. foreign policy. With a second term, Trump is expected to double down on measures to curb Beijing's expansionism, pushing for greater military cooperation among Quad members.

India's Growing Role in the Indo-Pacific: As the world's largest democracy and a rising military power, India is an indispensable partner in the Indo-Pacific framework. The U.S. has increasingly looked to India to play a central role in ensuring regional stability. During Trump's first term, defense ties between the two countries deepened, highlighted by agreements like the Communications Compatibility and Security Agreement (COMCASA) and the Basic Exchange and Cooperation Agreement (BECA).

The Quad and Beyond: Under Trump's leadership, the Quad evolved from a dialogue forum into a more robust security partnership, with India taking a more assertive

stance. A renewed Trump administration is likely to further institutionalize the Quad, potentially expanding its scope to include intelligence sharing, joint exercises, and even economic cooperation.

Strengthening U.S.-India Defense and Security Cooperation

The U.S.-India defense partnership has grown exponentially in recent years, driven by mutual concerns over China's military rise. A second Trump administration is expected to intensify defense cooperation, leveraging India's strategic location to counterbalance Chinese influence in the region.

Joint military exercises like the annual Malabar naval drills have enhanced interoperability between Indian and U.S. forces. Trump's return could see an expansion of such engagements, potentially including more Quad members. Additionally, arms sales to India, including advanced drones, missile systems, and defense technologies, would bolster India's military capabilities.

India's strategic interests align with the U.S. in ensuring freedom of navigation and countering terrorism, especially in the Indian Ocean. Trump's administration could focus on strengthening India's naval power, positioning it as a counterweight to China's expanding naval presence.

Economic Engagement and

Supply Chain Resilience

Beyond military cooperation, a renewed Trump administration would likely prioritize economic ties with India as part of its Indo-Pacific strategy. The COVID-19 pandemic highlighted vulnerabilities in global supply chains, particularly those centered around China. The U.S. and India have since been exploring ways to diversify supply chains and reduce dependence on Chinese manufacturing.

While the first Trump administration saw some friction over trade issues, including tariffs and market access, there were significant breakthroughs in areas like energy exports and technology partnerships. Trump's second term could see a more pragmatic approach focused on mutual economic interests, especially in the technology and energy sectors.

The Indo-Pacific strategy extends beyond traditional security concerns to include digital security and technological dominance. With growing concerns over cybersecurity threats from China, India and the U.S. could collaborate on securing 5G networks, artificial intelligence, and cybersecurity infrastructure.

India's Strategic Autonomy: Walking a Fine Line

While India is keen on strengthening its partnership with the U.S., it also seeks to maintain its strategic

autonomy. This balancing act is crucial, given India's geopolitical neighborhood and its complex relationship with China. As Trump pushes for a stronger anti-China coalition, India will need to navigate its own strategic interests without becoming overly dependent on the U.S.

Balancing Relations with Russia and Iran: India's long-standing ties with Russia and its energy relationship with Iran present challenges in aligning fully with U.S. policies. A second Trump term may see renewed pressure on India to reduce its defense purchases from Russia and to align with U.S. sanctions on Iran. How India manages these dynamics while deepening its Indo-Pacific engagement will be crucial.

Act East Policy and Regional Diplomacy: To assert its influence in the Indo-Pacific, India has been strengthening its ties with Southeast Asian nations through its "Act East" policy. A Trump-led U.S. may support India's efforts to counter China's Belt and Road Initiative by investing in regional infrastructure projects, thereby enhancing connectivity and economic integration in South Asia and beyond.

Navigating the Indo-Pacific's Future

As the U.S. recalibrates its approach to the Indo-Pacific under

a potential second Trump administration, India finds itself at a strategic crossroads. The deepening U.S.-India partnership offers significant opportunities for India to bolster its security, economic interests, and regional influence. However, navigating the complexities of this partnership will require India to balance its national interests with the broader objectives of a U.S.-led Indo-Pacific strategy.

The Trump administration's Indo-Pacific policy could serve as a catalyst for India's rise as a key regional power, provided New Delhi can skillfully leverage its partnerships while maintaining its strategic autonomy. In this evolving geopolitical landscape, the Indo-Pacific remains not just a region but a theater where the future balance of power will be determined, with India playing a pivotal role in shaping its outcome.

The coming years will be crucial in determining whether the Indo-Pacific truly becomes a bastion of peace, stability, and prosperity-or a contested space where major powers vie for supremacy. For India, the strategic balancing act continues, but the potential rewards of a stronger partnership with the U.S. are immense, offering a pathway to greater regional leadership and global influence.

(The writer is M.A Political Science student of Jammu University).

Global Science for Global Wellbeing

■ DR. BANARSI LAL

Every year 10th of November is observed as the World Science Day for Peace and Development across the globe to recognize the importance of science in society. The day underlines the importance and relevance of science in our daily lives. The theme of this year World Science Day is 'Global Science for Global Wellbeing'. On this day major scientific breakthroughs, achievements and contributions of our scientists are recognised who help the growth, development and prosperity of society. The day aims to foster a close connection between science and society. This day aims to educate the public about the scientific advancements and the role of scientists play in deepening our understanding about the world and creating a more sustainable society by awareness and discussions. The day promotes the participation of students, government representatives and the media in events that promote science for peace and development. Various events such as workshops, science fairs, motivational lectures by the eminent scientists and educators etc. are organised. As a result of the successful World Conference on Science in Budapest in 1999, World Science Day for Peace and Development was born. The day offers an distinctive perspective on the worldwide quest for peace and development by demonstrating the value of science in people's lives. Many inventions and discoveries of scientists have helped in economic development, poverty reduction, better nutrition etc. This day embraces the positive impact that science has brought to our society. This day was declared by the UNESCO in 2001 and has generated concrete programmes, proj-

ects and funding for the science across the globe. In 2002, the first World Science Day for Peace and Development was celebrated across the globe. Various Govt. and Non-Governmental organisation celebrate this day with full fervour and zeal.

This particular day highlights the importance of science in our daily lives and encourages students to embrace science as a career option. On this day, we emphasize on the value of science in our everyday life. The younger generation is promoted to consider science as their career opportunity on this important day. On this day the achievements of our scientists are highlighted in the field of science and technology. Various events are being organized in different institutions to mark the significance of the day. The day is crucial for scientists and others who are engaged in society building and governance. This day is considered as a symbol of pursuit for technological creativity, scientific inquiry and the conversion of that pursuit in the integration of science and society. The technology has brought massive changes in many fields whether that is agriculture, education, health, space, defense etc. Changes by the technology are quite apparent from our daily lives. Everybody has different opinion of technology. Some consider it as a boon while consider it as a bane. Generally our perception towards science is limited to weapons and automobiles. Innovations are the engine for the national and international growth. Scientific and technological developments are the keys of development for any nation. On this day we highlight the importance of science and the groundbreaking achievements in science. The day is far more than the histori-

cal event. New technologies are the gateway of future. On this day our best scientists and innovators are recognised. These scientists devote their whole lives in their respective scientific fields. The innovations developed by them help us to transform our lives through innovations. This day is celebrated as the symbol of quest for scientific enquiry and technology creativity.

Presently we need to prepare our rural base for more development. We need to adopt the renaissance concept taking advantage of the many advances in science and technology. We are employing the modern tools of information technology and knowledge management in rural areas also. Now we have to integrate our ideas and design a management strategy to develop a strong rural technology base. Rural road connectivity, rural housing, health, sanitation, safe drinking water projects are already in progress. Setting up of more and more rural science and technology based rural enterprises will help to upgrade human skills, generate employment and create wealth. Also era of growth and development will be ushered by the use of rural technologies. It has been observed that rural technologies are not reaching to the rural people to an extent as they should have to reach. There are various reasons like lack of awareness about rural technologies, lack of resources to access technologies, rural technologies are not cost-effective, not according to the needs of the users, not according to the culture of the people, not skillfully demonstrated etc. responsible for it. There is need to contemplate over the rural people's aspirations. Now the time has come to change our mindset for rural renaissance. Technology works for a specific

purpose, be it hi-tech or low-tech, hi-investment or low-investment oriented and need of hi-profile or low-profile marketing. Any technology that is developed by an individual or an institution needs to be transferred for field use. For rural development we need to prepare a Directory of Rural Technologies (DRT) which can be a valuable source for rural information. It can be particularly useful for potential entrepreneurs, consultants, promotional and financial agencies and field functionaries in rural areas. Even the research and development scientists should have rural technology information for further improvements. Some rural technologies like handicrafts, artisans and traditional ones are not documented in the conventional sense. The directory of rural technologies should be available in local language of the respective areas. Presently we all know the status of rural areas: our majority of rural population does not have access to proper sanitation, one-third does not have access to clean drinking water, a section of rural population is still illiterate, many villages lack road connectivity and electricity. We all are aware of the rural problems and perhaps we also know how to solve these problems. New innovative technologies need to be introduced in the villages to bring a big change. There is need an all round development in both rural and urban areas. There is need to develop needful technologies for the rural areas. In order to get quick results, replication of rural technologies which are successful at one place should be implemented at other places also.

(The writer is Chief Scientist & Head of KVK Reasi SKUAST-J).

On Rebirth

■ MOHANJI



Imagine you are your own ancestor, reappearing in this time to complete things that you left unfinished. This life is a divine opportunity to complete the incomplete tasks of your lineage.

There is no room to waste this opportunity on confusions and conflicts. What happens every moment is your God-given chance. Use it wisely, responsibly. Time is karmic money.

It is earned, measured and exhausted as physical money. Use it wisely. Never hate yourself, others, situations or life. Instead, love everything.

Respect everything. Accept everything. Be you always, the kindest version of yourself.

On Ramayana

■ MOHANJI

Ram is the supreme consciousness, the Parabrahma. Lakshman is the intellect that has the power to discern and analyze truth from untruth. He stays with Ram.

Sita is devotion, surrender and the Shakti aspect of the supreme consciousness. Hanuman is the mind that gains supreme strength and invincibility being associated with the supreme consciousness. When the mind is rooted in supreme consciousness, the being attains invincibility and immortality.

Parabrahma immortal. Ravan is the ego that dwells on position, possessions and relations. When the ego tries to disengage Shakti from the source, creation is affected. Destruction of ego takes place and unity is resumed.

Every aspect of Ramayana has more than one dimension or meaning to it. Do contemplate.