

BOOK REVIEWS

Lt Gen PK Singh, Maj Gen BK Sharma, Dr Roshan Khanijo (eds.), *Strategic Year Book 2017*, New Delhi, Vij Books India, June 2017, Pages: 215, Price: Rs 1495.00 (HB), Rs.750 (EBook)

Does India lack a strategic culture? This question finds continuous resonance amongst India's strategic community and also amongst a host of writers and strategic analysts, both, in India and abroad. In their well researched book, *Arming Without Aiming*, Stephen Cohen and Sunil Dasgupta allude to the haphazard changes that are taking place in India's military modernisation, stating that these changes 'lack political direction, suffer from balkanisation of military organisation and doctrine, remain limited by narrow prospective planning, and are driven by the pursuit of technology free from military-strategic objectives'. The authors attribute the dysfunction in the political-military establishment to the doctrine of strategic restraint, which has been a hallmark of Indian policy since Nehruvian times. Such a policy, paradoxically, has served India well, as it sought great power accommodation for its rise and did not want a misperception of its intentions by any of its neighbours. India foresaw danger in its modernisation efforts precipitating a period of strategic assertion or contributing to misperception of India's intentions by Pakistan and China, its two most immediate rivals. Thus, to further its development quest, India preferred to stay out of the earlier incipient contest between the US and the erstwhile Soviet Union, and now between the US and China. The strategic context has been 'resolve and restraint', to guard the domestic space.

However, that does not wholly explain why both the Indian military and the nation's political establishment continually shied away from enunciating a national security document—an essential element in the evolution of a strategic culture. Two decades ago, when the Standing Committee on Defence questioned the government on the lack of a national security document, the government's response was given by the then defence secretary, who stated, 'But all the elements of the doctrine are well known and have been incorporated from our constitution downwards. There have been several publications. There have been policy pronouncements by Ministers in Parliament. So, our national security doctrine is well known and the absence of a written document...does not create any confusion or lack of clarity in this matter. I however accept that we do not publish it as a document as such'.

We still do not have a published national security document. This was a cause for concern when the defence secretary gave his response to the Standing Committee on Defence, two decades ago and it remains a source of concern today. Within the services, scant attention is paid to the development of strategic thought within the officer cadre, which is why the armed forces continue to produce officers who perform brilliantly at the tactical and operational level, but fall short at the strategic level of command. This matter was discussed with a colleague who at that time was the army chief impressing upon him the need to promote a strategic culture within the army. He was dismissive of the idea, stating bluntly that officers need to concentrate on tactics, which is their bread and butter and not on strategy. There is no gainsaying the fact that officers need to be proficient in tactics, as that is what they are concerned with for most of their service years. However, for an officer to mature into a leader with strategic vision, requires a lifetime of study and contemplation. The appropriate start point is when the officer first dons the uniform and not when he is due for promotion to flag rank. There is no magic wand that can miraculously bestow wisdom of such nature to an officer, merely by the fact that the person has been elevated to a senior rank.

That there is a need to develop a strategic culture within the services and also within segments of civil society is undeniable. Training institutions within the services have excellent publications, which occasionally delve on the subject, as do some of the think tanks that deal with national security and defence related issues. Nevertheless, a comprehensive strategic review was lacking; and this need has now been filled by the United Services Institution of India (USI), with the publication of the Strategic Year Book 2017.

The publication under review is the second one to come out from the USI, the first publication came out in 2016, and received tremendous appreciation for its quality and contents, which perhaps prompted the USI to make this into a yearly feature and rightly so. The 2017 edition of the Strategic Year Book contains a series of articles by eminent persons and experts on various aspects of national security to provide a strategic perspective, which will create awareness and also help policy makers in giving a strategic direction for India to transform into a developed society and a secured nation. The book is divided into five sections, which look into India's internal security dynamics; strategic neighbourhood; conflict spectrum; comprehensive national power; and finally, India's defence capability.

The opening section on India's internal security dynamics has five articles. Rajiv Sikri, a former diplomat, succinctly outlines India's national security

interests and objectives in the evolving geo-strategic milieu. He lays emphasis on the threat to India from the China-Pakistan nexus, positing that China uses Pakistan as a pawn to tie down India in South Asia to prevent it from becoming a serious challenger to China's ambition to dominate Asia. He, thereafter, suggests steps that India needs to take to preserve its stakes in the region. In the next chapter, Lt Gen Ata Hasnain, a former Corps Commander of the Srinagar based 15 Corps, highlights the proxy war being waged in J&K, which is now in its 27th year and continues to witness dynamic changes. He posits that 2017 will be a crucial year for which the security forces need to be proactive in their approach to defeat the designs of the separatists and their Pakistani backers. The next article by Lt Gen AK Ahuja presents an analysis of the conflict in the north-eastern states of India and emphasises the need for better connectivity and infrastructure development as part of the overall defence preparedness effort. Adil Rasheed, thereafter, highlights the implications for India of the growing radicalisation in South Asia. In the final chapter in the section, JN Choudhary, a former DG Police, lays emphasis on the modernisation of police forces for effective management of internal security challenges.

The second section covers India's strategic neighbourhood with seven very well written articles covering a broad spectrum to include conflict in the region; developments in the Indian Ocean Region (IOR); India's engagements with the US, Russia and China; India and the SCO; and India's Act East Policy. Here, the implications of the Middle East conflict on India's security concerns as well as the geopolitics of combating terrorism in the Af-Pak region have been amply highlighted. Focus also has been given to the India-Iran-Afghanistan strategic engagement, which has the potential to re-energise India's connect with Central Asia as well as enlarge its options in Afghanistan.

Section III is the smallest of the five sections, having just four articles dealing with the conflict spectrum. These articles are, however, well focused, with Lt Gen PC Katoch highlighting collusive and hybrid threats in the Indian context. Pandita delves into the sensitive issue of Chinese footprints in J&K, Lt Gen Sahni analyses India's nuclear neighbourhood and Lt Gen Kumar gives an overview of the challenges in cyberspace, outerspace, and in the information domain. The four articles taken together give a comprehensive view of the conflict spectrum, which should benefit both the lay reader as well as the more serious reader of the subject.

The fourth section dealing with India's comprehensive national power is the largest section with eleven articles, dealing with economic growth; energy security; digital India; technology; self reliance through 'make in India' amongst

others. Each of these articles has been carefully chosen to give the reader a comprehensive view of the subject, starting most appropriately with a well reasoned reality check of India as a leading power by Sanjay Singh, a former diplomat. The final section deals with India's defence capability, through four well presented articles on perspective planning; ballistic missile defence; jointmanship in the forces; and reforms for optimisation of defence spending.

This book has been very well structured, and if its purpose was to promote strategic thought within the services fraternity as well as within those entrusted with the task of administering India, then that purpose has been achieved in full measure. It contains within its pages the accumulated wisdom and knowledge of some of the leading thinkers and defence experts of our times. This book is a must read for all service officers. It would be useful to civil servants, police officers and also to our lawmakers in Parliament and in the state legislative assemblies.

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Yogendra Kumar (ed.), *Whither Indian Ocean Maritime Order?* (New Delhi: KW Publishers, 2017), Pages: 280, Price: Rs. 880.00

Continuing his academic flair in the post-retirement phase, Ambassador Yogendra Kumar has put together an eclectic melange of thoughts and arguments in the edited volume titled, 'Whither Indian Ocean Maritime Order?' The volume through its collection of contributions draws from an impressive array of experts, policymakers and academicians, giving a rare insight into a very important yet evolving subject- the Indian Ocean Maritime Order. The book is the outcome of a seminar by the same title that was convened to elaborate perceptive understanding of Prime Minister Narendra Modi's SAGAR (Security and Growth for All in the Region) speech in 2016. The contributors have analysed the Indian Ocean Maritime Order vis-à-vis policy options, theoretical perspectives, governance structures, India's naval diplomacy and the overall challenges to the order.

The Foreword to the book brings out a rare perspective of a practitioner through the pen of Dr. S. Jaishankar, the current Foreign Secretary of India. Tying the Indian Ocean's historical, demographic and geographical importance to its current and future significance, Jaishankar tries to locate the emerging maritime narrative within the context of the Asian economic resurgence. He views the emerging security architecture of a multi-polar Asia as a seamless expanse of continental and maritime domains, which would have 'Blue Economy' as an integral factor of India's security calculus. In the area of HA/DR, he recommends that a multilateral approach involving the ASEAN and the ASEAN Regional Forum would be an ideal way forward. Besides, India's renewed focus on the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) could be a 'harbinger' of greater focus on the Bay of Bengal. Emphasising that PM Modi's SAGAR speech is an articulation of India's national vision about its stakes in the Indian Ocean, the author advocates a de-fragmentation of the two parts of this Ocean divided by the Indian peninsular land mass.

Taking off from the Prime Minister's speech concerning the Indian Ocean and the regional maritime order, the Introduction to the book lays out the emphasis of the book through five prospective yet important components regarding India's Indian Ocean policy. Evincing core national interest, the first is the national responsibility and the ability to safeguard the mainland as well as islands in the Indian Ocean. The second component concerns deepened economic and security cooperation within the region, including maritime neighbours and island states. The third is the focus on collective action and cooperation for peace and security in the maritime region. The approach to this would likely involve multilateral maritime diplomacy, such as the strengthening of the Indian Ocean Naval Symposium (IONS), which would in turn help in maritime capacity building and better preparedness to respond to emergencies. Maritime diplomacy, to begin with, should focus on immediate neighbours like Sri Lanka and Maldives before expanding to other countries. The fourth dimension of the outlined policy caters to maritime regional integration based on the principles of sustainable development and 'Blue Economy'. Such steps would be driven by a host of entailments ranging from promotion of trade, tourism, investment, infrastructure, marine science and technology, and sustainable fisheries to the protection of marine environment. Through the last component of its policy India would focus on the stability and prosperity of the Indian Ocean as its own responsibility as a major littoral state in the region. Through these principles India seeks to develop a maritime ethos of trust and transparency where there will be respect for

international maritime rules and norms by all countries while still being sensitive to each others' interests – cultivating a 'Shared Growth' for all in the Region.

Concluding Section I of the book, another Foreign Secretary of India (former), Shyam Saran lists the factors that have led to this renewed interest in the Indian Ocean like sea lines of communication (SLOCs), HA/DR along with both traditional and non-traditional security threats in the region. These dimensions, he stresses, form the core of the Indian Ocean's maritime order within the context of PM Modi's SAGAR speech. Saran portrays a robust naval future for India albeit with caution. India deploys one of the strongest naval forces in the region with considerable force projection capabilities that expand in both the directions from its land space. The Indian Navy will see a 'steady expansion of capabilities and reach' in accordance with the Maritime Perspective Plan 2012–2027. Highlighting the importance of the Indian Navy for a stable Indian Ocean maritime order, he brings out the offensive, defensive, and cooperative aspects in which the Indian Navy could be instrumental in going forward. However, India's continued lag in the area of ship building takes away from the fact that India deploys one of the strongest naval forces in the region. Adding further caution, Saran also points out that the benign nature of the US presence in the Indian Ocean could be up for a change soon, which in turn could catapult India into the midst of a possible maritime rivalry between the US and China. This, as the Chinese Navy's footprint and capabilities are expanding in the Indian Ocean.

Section II of the book comprises three chapters, which try to map the varied nature of traditional and non-traditional security challenges to the maritime order in the Indian Ocean. In the first chapter, Sanjay Chaturvedi tries to provide a theoretical understanding of the emergence of a maritime order in which 'order from above' pushed largely by the perceptions and policies of extra-regional major powers to the IOR is paving way for a multi-polar order. He views the IOR maritime order as evolving, and locates the future in a 'Regime Complex' governance and security structure, which would pull together a set of regimes through regional and sub-regional institutions 'running in parallel while coordinating in finding a common policy ground...'. It is here that his idea of a future maritime order in the Indian Ocean coincides with the SAGAR initiative.

The second and third chapters of Section II complement each other, in that while the former deals with traditional security challenges to the maritime order in the Indian Ocean, the latter deals with non-traditional security challenges within the same context. Satish Soni meticulously puts forth the nature of prevailing and future security challenges in the IOR. Setting a

continental backdrop to maritime security challenges in the Indian Ocean, he links activities in India's vicinity directly with the future challenges. In particular, he highlights increasing Chinese activities in the IOR and the China-Pakistan Economic Corridor, given their maritime threat potential. Discussing non-traditional security challenges in the Indian Ocean, Ajay Mathur, Saurabh Bhardwaj and Nitya Nanda highlight the threat that the Indian Ocean marine ecology faces due to the changing nature of exploitation of marine resources. Highlighting threats to fisheries, minerals, loss of biodiversity, oil spills, and changing climate patterns they underscore the importance of sustainable growth and balanced development in the IOR littorals.

Section III and Section IV of the book, each lists four chapters. While the former deals with various aspects of governance structures for the IOR, the latter explores the multifaceted diplomacy that is needed to further the spirit of a shared regional growth. Giving a comprehensive overview of governance structures for the IOR, Ambassador Leela K. Ponappa primarily hints at three key points. First, there is no overarching security architecture for the IOR. Second, the current maritime order of the IOR is fragile and third, there are differences between assessments of threat from regional and extra-regional perspectives. In the following chapter, PK Ghosh discusses a crucial dimension of the current and future IOR maritime order, namely the IONS. Describing the IONS as the 'only pan-Indian Ocean region maritime security forum' Ghosh raises the importance of IONS in India's desire to play the 'unobtrusive fulcrum' in the IOR. He, however, adds a caveat that the true potential of the IONS is far from having been realised. The final chapter in this section by Prabir De analyses the contours of the Indian Ocean Rim Association (IORA) and the BIMSTEC within the context of scope and opportunities of cooperation between the two organisations. Both, IORA and BIMSTEC, are projected as organisations that complement the IOR's maritime order through commerce, culture and connectivity.

Writing about Indian diplomacy for the IOR in Section IV, Renu Pall emphasises the need for intensive dialogues with the IOR countries to 'understand their priorities, their challenges and to build capacities'. Going forward, it is recommended that the Indian private sector be roped in for infrastructure development in the IOR countries. In this regard, the extension of project MAUSAM, the International Solar Alliance and the NavIC system are highlighted as India's diplomatic possibilities with the IOR countries. Gopal Suri in the following chapter describes the historical aspects and analyses the future relevance of naval diplomacy for India. Citing eight characteristics of navies that are essential for diplomacy and four problems in managing naval

power, the author not only brings out the lacunae but underscores the challenges for India's naval diplomacy in future. The bottom line of his argument concerns enhancing the naval dimension in India's foreign policy in the future. Picking up from the earlier argument, Deepak Shetty has succinctly depicted India's credible history of diplomatic outreach through its shipping sector. In the areas of counter-piracy, HA/DR, Search & Rescue, Navigation, Maritime Education and Training, and tackling vulnerabilities emanating from terrorism and cyber threats, India is undertaking significant capacity building. In the last chapter, K. Somasunder and MN Rajeevan explore an ocean-centric approach towards developing the 'Blue Economy' of India along with a simultaneous assessment of the diplomatic role of the Ministry of Earth Sciences.

In a befitting structural denouement, the penultimate section of the book, Section V, has been written by the incumbent Deputy National Security Adviser Arvind Gupta complementing the forward by his immediate boss. Projecting the historical relevance of the Indian Ocean as having come a full circle, Gupta argues for India's stakes in a peaceful and stable order in the Indian Ocean. The book ends with an Epilogue in the final section, which prepares a future policy ground, primarily by looking ahead in terms of securing India's national interests in the Indian Ocean. Authored by the editor himself, the Epilogue tries to assess various security challenges in the Indian Ocean and the prevailing security milieu for a 'new Maritime order in the IOR'. The editor ends this book at the point where an actual policy paper could take off easily.

Rarely does one see such a rich compilation put together in a volume. The fact that it draws from incumbent decision-makers and policy framers, besides academicians and researchers makes this book useful for a range of people, including those in the academic field, think-tanks, bureaucracy, and beyond.

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Sten Rynning (ed.), *South Asia and the Great Powers: International Relations and Regional Security*, (London, UK, I.B.Tauris, 2017)
Pages: 320, Price: £59.00

In a world that is increasingly dominated by regional powers and politics, there can be questions about the role that external great powers can play. This is true not just for South Asia, but also for the larger Asian theatre as well as other regions such as the Middle East. We are often given to forget that until the European expansion, much of interstate politics was indeed regional politics. The dominance of the Cold War global politics, which was also the period when international politics as an academic discipline developed, tended to put greater emphasis on global politics rather than on regional dynamics, though we can make a fairly strong case that in many regions, it was the latter that was more important. Still there is increasing recognition that as American power fades, or more accurately, as the American will to play its global role fades, regional politics will once again come to the forefront.

Unfortunately, this inappropriately titled book does not really address these issues. Contrary to its title, this is almost entirely about Afghanistan and the prospects for peace in that troubled country. This obviously has implications for Pakistan and India, and the politics between these countries, but there is little of South Asia beyond this in the analysis here. Indeed, even the India-Pakistan dimension is a side-show, with much of the focus on Pakistan-Afghanistan and role of external powers in and their policy towards Afghanistan. Not that there is anything wrong with such a focus, but when picking up a book titled *South Asia and the Great Powers*, one would expect at least a passing nod to the great powers' policy towards South Asia beyond just Afghanistan.

Nevertheless, for anyone interested in the dynamics of the Afghanistan conflict and its contours and implications, this edited book is a reasonably valuable contribution, with some excellent chapters from analysts who are leaders in their area. There are some omissions: with the exception of one chapter on its foreign policy towards Afghanistan, India is almost entirely absent in the book. The introductory chapter by Ronald Neumann sets the trend: towards the end of the chapter, it considers the policies of the key players in Afghanistan, including those of NATO, China and Iran, but not India, despite the fact that India is one of the largest providers of civilian aid to Afghanistan and India's military and security footprint in Afghanistan has been increasing. It is possible that this illustrates India's very limited footprint

in hard-power in the multi-cornered fight within Afghanistan and it is an indication that India cannot have much influence in Afghanistan simply with developmental aid and its other “soft-power” capacities.

The situation within Afghanistan itself is the focus of a very long chapter by Felbab-Brown, who not only outlines the fragmentation of the governing classes but also of the Taliban, which makes negotiations that much more difficult. The story, at least of the fragmentation and short-sighted politicking and one-upmanship of the ruling elite, is of course not a new one; in fact it is the bane of the country. The attempt to amass as much power as possible may also be understandable if everyone expects the chaos to continue or even get worse. International actors have not been able to change this calculus, as Alessandro Marrone and Paolo Sartori point out in their chapter on NATO. However, to a large degree, the chapter is also a good illustration of the false hopes with which NATO and the United States in particular entered the region. Bemoaning the lack of regional organisations and multilateralism simply illustrates how different the Western experience has been from that of the rest of the world. It also speaks of the comforting cloak of American protection behind which that order could be created. In other words, to expect that regionalism and multilateralism will somehow magically emerge to create peace even in the midst of hard insecurities was probably a difficult hope to begin with. That it did not succeed in this region is not a surprise.

Moving on to the sections on national policy, Anthony Cordesman argues that the US has gone from seeing the Afghan war as the “good war” as Barack Obama characterised it when he was running for the presidency to something of a “forgotten war” as Obama wound up his office. The lack of an effective partner in Afghanistan, and an “ally from hell” in Pakistan, as well as strategic minimalism in Central Asia has left India as the key US partner in the region, which is to no small extent also the consequence of China’s rise. Cordesman argues that the US should not leave a vacuum in Afghanistan, but seems somewhat less sold on a US-India partnership. On China, Jo Inge Bekkevold and Sunniva Engh argue that China has multiple interests in the region, and that the Silk Road infrastructure project is mostly about economics and connectivity as well as securing its western regions from the spread of Islamic terrorism. However, they also accept that China’s long-term objective, mainly by using Pakistan, has been to ensure that India does not become a regional hegemon in South Asia. As they point out, this is unlikely to be unchallenged by India. They suggest that China does not give much priority to South Asia, but the point is that with India’s growing power, this is likely to change, though I suspect that the idea that South Asia is not as important in

China's calculation is also a bit of an exaggeration. After all, China felt sufficient need to balance against India, so much that it transferred nuclear and missile technology to Pakistan, a very rare instance in international politics. That hardly suggests low priority for the region.

Addressing India's interests in Afghanistan, Meena Singh Roy and Christian Wagner outline India's "soft-power" approach to the country in terms of substantive Indian aid for economic and infrastructural needs. This is a point often made by analysts and indeed by Afghans themselves, usually contrasted with the manner in which Pakistan has intervened with its covert operatives. Nevertheless, it is also true that Afghan love for India is simply a function of their historical dislike for Pakistan, not so much any intrinsic attractiveness of India. Moreover, another simple truth also needs to be kept in mind: that Pakistan has far greater influence over politico-security developments in Afghanistan than India does despite all its so-called "soft-power", so much so that India is barely even consulted in international conferences over the future of Afghanistan. Indeed, Indian influence may actually have declined since 2001. This was partly the consequence of the US convincing India to stay out of Afghanistan in order not to antagonise Islamabad; it is also the consequence of India's own risk-averse approach. And as the US looks to downsize its commitment to Afghanistan, India is likely to suffer unless it changes its approach and builds its own hard-power assets in the country.

Rounding out the country policy perspectives, Houchang Hassan-Yari looks at Iranian policy and finds that despite the obvious Iranian security interests in Afghanistan, Iran's policy has been hobbled by lack of political unity and direction in Teheran.

Two further chapters look at the foreign policies of Pakistan and Afghanistan. Tughral Yamin on Pakistan outlines a familiar story as seen from Pakistan's perspectives, which is a story of a small and weak Pakistan trying to gamely manage its insecurity vis-à-vis its larger neighbour, India. The insecurity itself is understandable: India feels the same way regarding China, and India's other smaller neighbours share some of Pakistan's concerns, if not its response. The chapter could have fared better with some assessment of the manner in which Pakistan has attempted to deal with this insecurity, which has only made things worse for itself. A larger question also remains unanswered: Why Pakistan, despite having nuclear weapons, still feels the same level of insecurity as ever?

Mohammad Mansoor Ehsan's chapter draws a parallel between the disunity within Afghanistan and that within South Asia. While the disunity in these two

settings is empirically incontrovertible, the parallel seems a bit stretched, as is the expectation, which runs throughout the volume, that all will be well if political leaders in various countries only understood their true national interests.

The penultimate chapter by Peter Viggo Jakobsen suggests that the US needs a new strategic narrative to stay involved in Afghanistan, even if the US forces are withdrawn. That may well be true but that does not address why it will be in the interest of a US leader to spend the domestic political capital to create such a narrative.

In the conclusion, Sten Rynning suggests a role for India in moderating its role in order to promote peace in Afghanistan and the region. Considering that India's role in Afghanistan has been fairly minimal this last decade and a half, it is not clear what else New Delhi might do to satisfy Pakistan's paranoia. Indeed, the key problem in much of the region is Pakistan's short-sighted embrace of deadly sub-national actors as tools of asymmetric warfare. Unless Pakistan can be convinced or punished to prevent it from continuing down this path, there is likely to be little peace in Afghanistan or the region.

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Ajey Lele (ed.), *Fifty Years of the Outer Space Treaty: Tracing the Journey*, (New Delhi, 2017, Pentagon Press), Pages: 232, Price: Rs. 995

The Outer Space Treaty (OST), signed in 1967, completes 50 years of its existence and relevance this year. In an excellently edited volume, "50 Years of the Outer Space Treaty: Tracing the Journey", Ajay Lele has commendably analysed the Outer Space Treaty's evolution, growth, and its continuing relevance in this period. In putting together 15 articles by 15 scholars, Ajay Lele has made a logical arrangement in three sections and takes us through legalities, global outlook, and governance issues. The book starts with a very comprehensive overview by the editor, and he completes it with a

crisp conclusion bringing out the essence of the study. The chapters are spread over 200 pages with two appendices of over 11 pages detailing the OST *per se*.

It is common knowledge that Space age began with the launch of 'Sputnik' by the erstwhile USSR in 1957. What is not commonly discussed is the fact that the Sputnik was launched using an ICBM rocket, which corroborates the fact that entry into Space was driven more by military competitiveness and national prestige than exploration. Concern for regulating activities in Space began to emerge as early as 1952, as Ram Jaku brings out in the introductory chapter, and gathered momentum after 1957 and more so after reckless nuclear testing by the two super powers highlighted the potential of vast damages and its impact on humanity. The OST was signed in 1967 after tenuous and long drawn out discussions. Titled 'Debating Outer Space Treaty', the first section has five chapters devoted to the legal aspects and continued relevance of the OST from international law perspective. Ram Jaku describes the conflict between the idealism in the objective of declaring Space as the province of mankind and the geopolitical realism of deriving the best for national interests. The 1963 Declaration of Legal Principles, adopted by the UN General Assembly, becomes a historic milestone in laying down the foundational principles, unaffected by power politics, for further development of the historic OST. Joan Johson Freese feels that politics of outer space, much like terrestrial geopolitics, cannot wish away competitive nuances driven by self-interest of nation states, and hence, Space is becoming 'congested, contested, and competitive'. While Joan Freese agrees that realism drives the behaviour of nation-states even in Space, she also finds that liberal internationalism and arms control treaties/regimes will temper the behaviour of states. OST, is thus seen as having been effective so far in preventing arms race in Space, and is expected to strengthen the promotion of space as global commons. The reality, however, is different. Nations-states, great powers in particular, prefer choices that serve their interests even at the cost of global commons and humanity. Hence, the two super powers went through nuclear testing in space between 1958 and 1962 to ensure their military objectives were met before adhering to principles of global commons. The 1962 'Starfish Prime', a 1.45 Megaton nuclear test at 600 km in space, was done for military objectives in spite of the knowledge of its likely damage to the environment. The test damaged satellites, created damaging radiation belts, and led to significant damages to ground infrastructure through its EMP. Both the super powers completed their tests and objectives before the OST came into force in 1967. China ignored the OST when it tested its ASAT in 2007, creating extensive space debris.

The next two chapters by GS Sachdeva and Ranjana Kaul analyse in detail the legal relevance and limitations of the treaty. Sachdeva appraises the OST in terms of the new jurisprudence, original weaknesses in the treaty, and new challenges in the light of modern technological developments. The first part re-emphasises the oft repeated characteristic of the OST - that is the irrelevance of the geopolitical factors of territoriality and sovereignty in outer space. This new jurisprudence radically differs from the tenets of terrestrial laws and settled principles of international law. Sachdeva comes out strongly against the USA's legislation on "Apollo Lunar Landing Legacy Bill" that is in violation of the fundamental principle of the OST that prohibits all forms of ownership in outer space and celestial bodies. This principle is further reinforced by the tenets of "province of mankind" and "freedom of access to all states". These fundamental tenets are seen as having established a 'Space Law' that recognises the compulsion of 'International Cooperation' as opposed to the 'phantom of sovereignty'. International Cooperation is certainly the cornerstone of Space Law but complete adherence to it will continue to be challenged by the principles of national interest. In identifying weaknesses, Sachdeva focuses on those clauses such as "province of mankind", astronauts as ambassadors of mankind, and ambiguous definitions relating to weaponisation of space as lofty articulations with little practical relevance. The author finds that these weaknesses get accentuated in the light of rapid technological developments of the last two decades and the entry of private players in space commerce. Rapid increase in space debris is easily the most significant threat that needs cooperative solution. Sachdeva's recommendation of strengthening and contemporising the OST in the light of emerging technological and space dependency complexities is certainly the need of the hour.

Ranjana Kaul highlights the "emerging shift away from space as a common area free of state sovereignty under International Law" towards possibility of ownership under commercial activity. She rightly takes up the recent US Space Competitiveness Act of 2015 for discussion as the most important development that would impact how the Space Law transforms in the 21st century. As more nations pursue space as an arena of immense commercial and economic value, space competitiveness would increasingly become the main issue governing the behaviour of states in Outer Space. The OST, therefore, will come under pressure to resolve issues emanating from competing national interests. Ranjana Kaul discusses the different pulls exerted by various interest groups in discussions in the UN's Conference on Disarmament as well as in the UNGA. The discussions on EU's Code of Conduct and the

proposal of PPWT from Russia and China have clearly brought into the open serious divisions among the international community with respect to the future of the OST.

In the concluding chapter of the first section, Ji Yeon-jung highlights the emerging Space Arms Race in Asia. The author attributes this development to the slow treaty building process for the prevention of a space arms race. The author describes China, India, Japan and South Korea as Asia's emerging space powers. That may be a bit off the mark, considering the fact that China, India, and Japan are now full-fledged space powers. Nevertheless, that national security concerns, national prestige, and technology pursuit are the factors driving the Asian powers into a high intensity space race is a well established fact. Apart from the clear national security orientation of China's ASAT tests and its related experiments, China's leadership position in space technology is well established through its launching of the world's first quantum communications satellite. Besides, China's manned flight programmes, its PNT programmes, and the rapid increase in its infrastructure and the number of dual application satellites has unnerved its neighbours and rest of the world. China's Space strategy is focused on reducing USA's dominance and increasing its own sphere of influence and technology in space. These developments have triggered rapid responses from Japan, India, and South Korea. Other players such as North Korea, Iran, Israel, and Pakistan make the Asian scene particularly security oriented with their missile, nuclear, and space oriented approaches. Regional groupings on space technology and services such as the China led APSCO (Asia-Pacific Space Cooperation Organisation) and the Japan- led APRSAF (Asia-Pacific Regional Space Agency Forum) have become rival factions of space cooperation that makes the future of OST uncertain. China-Russia sponsored proposal of PPWT (Prevention of the Placement of Weapons in Outer Space Treaty), while seemingly laudable in its objective, fundamentally seeks to bring a status-quo limitation on freezing the current superiority of weapons capability of a few great powers such as these. As the author says, future viability of the OST depends on increasing transparency and cooperation amongst the major space powers in Asia.

Section II, consisting of seven chapters, is devoted to examining the global outlook on the OST. The seven chapters/authors examine the approaches of various space powers/space regions towards the future requirement and viability of the OST. In the first chapter of the section, author Frans G. von der Dunk raises very pertinent questions on the complexity of space cooperation in Europe that involves two sides, one of cooperating states and the other of

a single quasi-federal union of states, particularly in the backdrop of Brexit and other sovereignty related problems threatening the EU. The role and importance of national space policies and legislative issues get highlighted when the European Union's Space policy is discussed in the context of members and non-members. The ESA (European Space Agency) materialised as a solution to some of these problems and this arrangement is likely to carry on as a more pragmatic approach to handling space services and infrastructure requirement, where the focus is on funding and implementation. However, in the context of treaty obligations and the future of OST, it is likely that the EU would move ahead to take over the responsibilities. Accordingly, national policies of non-members would come into play. The primacy of the EU is increasingly in evidence as seen in its taking over of Europe's two flagship projects of Galileo (Europe's Global Navigation Sub System Project) and Copernicus (Global Monitoring for Environment and Security Project). The author, while accepting the emerging reality of EU as a space operator and legislative authority, continues to highlight quite a few legal and legislative challenges with respect to the ability of non-member states to enable EU to represent them in the context of future OST deliberations.

Philip A. Meek highlights USA's role and critical importance in the formulation of international space regime. That USA continues to lead the space exploration and exploitation by a huge margin, in comparison to the rest of the world, is incontestable and beyond doubt. USA's space activities were dominated by military priorities during much of the Cold War. Much of this has transformed towards commercial viability due to rising importance of space-enabled services. The author covers much of these historical and developmental issues and brings out the important role of USA in making the OST possible. The CSLCA (Commercial Space Launch Competitiveness Act) of 2015 has become a watershed act in Space Law in the context of Articles I and II in the OST. Popularly called the Space Mining Act, most scholars are critical that it violates the essence of the OST and opens the door for competitive commercialisation of space activities. The author argues that the CSLCA is in compliance with the OST provisions, and cites the statute where it says, "...the United States does not thereby assert sovereignty or sovereign or exclusive right or jurisdiction over, or the ownership of, any celestial body". Stating that the USA has consistently held such position since the 1960s and in the UNCOPUOS, the author argues that space mining would become a reality within a decade, and hence, review of the OST, particularly the contentious interpretations of the "common heritage of mankind" philosophy of the Moon Agreement,

in the context of changing technological environment is a necessity. USA's attempt towards Protection of Cultural Heritage in Space has created another controversy in the context of the OST, as it is seen as an attempt to establish sovereign rights over territory on the moon. While the author tends to justify US position, there is no ambiguity that this attempt has the potential of undermining the very foundation of the OST.

The Russian approach is well articulated in the next chapter by joint authorship of Aleksandr Klapovsky and Vladimir Yermakov. This is a very cogently argued chapter, and supports the very essence and global commons approach of the OST. Having initiated the Space Age and with it the Space race in 1957, both USSR and the USA established the major track of national defence oriented space capability development, which contributed to major weapons and ISR development. It is, however, to the credit of the USSR that its early focus on the PAROS (Prevention of an Arms Race in Outer Space) by the Prevention of Placement of Weapons (PPW) in outer space was a driving factor in the materialisation of the OST in 1967. The OST and its allied treaties constitute the contemporary regime of International Space Law (ISL). The ABM treaty was a significant achievement in preventing space arms race, thus strengthening the OST. USA's withdrawal in 2002 has undermined the OST significantly. The authors highlight the weaknesses and loopholes in the OST with respect to deployment of weapons in outer space. These weaknesses have aided the development of ASAT weapons and Missile Defence Systems that contribute to instability. The authors support the China-Russia proposal of PPWT as a critical requirement that would enhance OST and ensure free and equal access for all states to the peaceful exploration and use of outer space.

LI Juqian's chapter on China's space activity elucidates China's space policymaking process and its support and adherence to the principles of OST. Over the last 60 years, China has pursued an independent space policy. According to the author, this was necessitated by China's isolation in the 1950s and 1960s, and in the Cold War environment in which it existed. As the author argues, China's primary reason for developing Space Technology was the need to safeguard its sovereign borders and guard its independence as a country in the era of the Cold War. Accordingly, its approach to OST was, and is determined by its national interests. The ASAT test, notwithstanding China's explanations, is clearly focused towards safeguarding its national interests. The author highlights the importance of the Chinese state's institutions and legal mechanisms that play a pivotal role in its treaty making process. It is obvious, therefore, that the Chinese State

would carry out significant analysis from its national interest perspectives before involving itself in any international space regime talks. China, along with Russia, has been the key proponent of the PPWT as against the EU sponsored Code of Conduct in Outer Space. The author highlights the fact that China has achieved a significantly advanced level of Space technology, and this has resulted in its desire in taking a leading role in Asian Space services and space technology. APSCO is a manifestation of the same. The author, however, skips the very evident Asian Space Race in his discussions.

Kumar Abhijeet looks at India's approach to the OST. Being one of the pioneers who signed the OST in 1967, India has studiously adhered to, and supported all provisions of the OST. It has also been a champion of the 'global commons' approach to exploiting outer space. The author highlights the important fact that until now India has no specific space legislation. This has been primarily because Space activity, until now, has been entirely state-driven. However, now that India is likely to encourage private players to enter Space activities, the author is of the view that a national space law and guidelines are essential. The chapter has missed out completely the security nuances that impact India's Space policy and its Space assets. This is a significant flaw.

The Space strategies and OST's relevance to Japan and the Koreans are covered in the next chapter by Munish Sharma. This is a region of complex dynamics, and rightly, the author deals with the politico-military and security dynamics between the triad of Japan, the Democratic People's Republic of Korea (DPRK), and the Republic of Korea (ROK). While Japan and ROK have been signatories to the OST since 1967, DPRK became a signatory in 2009. The dual nature of Space technology becomes a critical analytical point in a militarily sensitive region such as this in the context of adherence to OST. The author highlights the vulnerability of DPRK in its relations with the rest of the world. Hence, even a peaceful satellite launch by DPRK is viewed as an aggressive move by Japan and South Korea, and the rest of the world. DPRK's poor track record of adherence to international treaties, and its dependence on China and Pakistan makes it a suspect in all activities related to Space, and hence, a serious violator of OST provisions. ROK's rapid development as the fourth largest economy in Asia has enabled it to become a major technological power. Its ally status with the USA gives it important position in the Space dynamics and technology. Security implications define much of the national policies of ROK and Japan. The author discusses the impact of new Space laws enacted by Japan over the last decade, which has given its space activities a significant security dimension.

Malay Adhikari's chapter focuses on the important element of Observer Organisations in COPUOS. Dwelling on the 'global commons' provisions of promotion of science and technology, the banning of WMD in outer space, International Cooperation, and international organisations, the author examines the role and relevance of three permanent observers- APSCO, ISNET, and AARSE. APSCO, led by China, conforms to the OST provisions of the need to establish an organisation in an area that is underdeveloped in space activities. The author highlights that China provides the leadership and expertise as mandated by the OST. The author examines APSCO's efforts in 'promoting peace, promoting international cooperation, and promoting science and technology'. ISNET, an organisation of 16 Islamic states functions under the auspices of the OIC (Organisation of Islamic Countries) and seeks to promote space science and technology according to the provisions of OST. Similarly, AARSE seeks to achieve mutual sharing of international space science, technology, and applications amongst African nations under Article IX of the OST, and enhance international cooperation and peace as mandated by the OST.

The third section has three chapters focusing on space governance and its future prospects, followed by the conclusion. The chapter on 'Evolution of Policy and Law for International Space governance' by Eligar Sadeh is detailed, and well articulated. It examines the nuances of the 'global commons' issues with respect to governing space, and the challenges of collective action. The idea of 'global commons' is well explained by the author. More importantly, the author is right in interpreting Garrett Hardin when he says, 'A commons with no governance, and thus unregulated by law, results in a "tragedy of the commons"'. The author is spot on when he says that the OST reflects the "tragedy of commons" because leading powers have approached the exploitation of space for their self-interest, and are accruing advantages to themselves with complete disregard for the negative consequences on other users and on the space domain itself. Hence, the author's focus is on a governance mechanism that should avert the 'tragedy of commons'. In addition, he rightly articulates that the OST provides all avenues for a meaningful collective mechanism. The author's emphasis on the dangers of orbital debris, and the imperative need for timely sharing of earth observation data are well placed. His discussion on ensuring strategic stability through cooperative efforts on space assets protection, treaty adherences and deterrence by entanglement (more correctly inter dependence) should form the cornerstone of space governance. Quite obviously, cooperative global engagement should be the essence of space governance of the future. Rajeswari Rajagopalan's chapter

highlights the ongoing mechanisms; under UNCOPUOS, TCBM, GGE, EU's Code of Conduct proposal, and the PPWT proposal by China and Russia. The need to evolve next stage OST in the context of new technologies and capabilities is well established. Ram Jaku looks at the future of OST by examining various possibilities and options. He looks at four possible scenarios, from no change at one extreme to the improbable 'complete failure of OST', and examines the various ramifications. Suffice it to say that it is prudent to examine all possibilities and prepare accordingly.

The conclusion by editor Ajay Lele summarises the "Challenges and Limitations" and also includes "Recommendations", and the way ahead with a reality check. Nevertheless, OST is here to stay, and given the trajectory of technology and human progress, it is inevitable that the international system will perforce expand the relevance of OST and Space governance in the 21st century.

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