

Sandeepa Bhat B and Shovik Kumar Guha, *Fundamentals of National Space Laws* (Thomson Reuters, India, 2022)¹

The Book ‘Fundamentals of National Space Laws’ edited by Sandeepa Bhat B and Shovik Kumar Guha published by Thomson Reuters (2022) is a compendium of nineteen distinct essays authored by distinguished scholars. While the first part of the book i.e. Chapters 1 to 9 largely illustrate national efforts in various jurisdictions to promote commercial use of outer space, the second part of the book Chapters 10 to 19 reflect upon the domestic approaches to some of the contemporary issues in outer space.

The first Chapter in the Book titled as ‘Space Legislation: Random Reflection’ authored by G. S. Sachdeva identifies that necessity for space legislation in India is largely in response to India’s Treaty obligation (Outer Space Treaty), Constitutional requirement and superintendence of private sector activities. A critical analysis of the 2017 draft Space Activities Bill of India and limitations of the space treaty in the context of emerging activities in outer space has been presented. He has cautioned that a “State cannot confer power on its citizens in relation to a treaty beyond those bestowed by the Treaty, which circumscribes the scope of the subject matter. Nor can national space legislation transgress the limits of space law”. He recommends for a new treaty addressing contemporary needs and proposes a ‘trusteeship model of space governance’ under the auspices of United Nations. Ms. Mahima Cholera has authored second Chapter of the Book titled as ‘Decoding the US Approach to National Space Legislation’ wherein US space legislations has been analyzed in light of international obligation of USA. The author is of opinion that system of compulsory insurance risk coverage to shield against liability for damages resulting from space objects is a constraint on developing economy countries and a system of ‘National Domestic Fund’ would serve as a better alternative. She also presents a critical analysis of the US Commercial Space Launch Competitiveness Act 2015 and the Free Enterprise Space Bill 2017. Environment impact assessment, debris mitigation measures for protection of environment of outer space prescribed by US legislations has been appreciated.

Chapter 3 – ‘Navigating Russian Space Legislation’ authored by Ms. Purna Acharya reflects upon the 1993 Russian Federation Law on Space Activities. The author is of opinion that 1993 Law is not a self-contained regime and the *Lex Lata* includes Constitutional Provisions, Federal Acts and administrative orders. The

1 **DISCLAIMER** – The present Book Review must not be considered as an endorsement of the views expressed in the Book. They remain the individual views of the respective authors who have contributed in the Book. The Review has been written in personal capacity of the Reviewer and must not be attributed to the Ministry/ Government of India or the employers or the institutions with whom the Reviewer is or was associated. Any critique or shortcoming of this Book Review must be strictly attributed to the Reviewer only.

1993 Law on Space Activity is a general legal framework for space activities, which is supplemented by other specialized laws. Christopher Newman has presented the fourth Chapter - 'Space Law and Policy within the United Kingdom', wherein he highlights that the UK has two strands of space legislation. Launch and/ or satellite operations outside UK are regulated through the 1986 Outer Space Act and those within UK is regulated through the 2018 Space Industry Act. In addition, the 2021 Space Industry Regulations, Accident Investigation Regulations and Appeal Against Decision made under the two licensing regimes supplement the UK space legislations.

Analysis of South Korean Laws on Regulation of Space Activities (Chapter 5), has been presented by Mr. Abhishek Hazari. The Law governing outer space in South Korea includes 1987 Aerospace Act, the 2005 Space Development Act. The author is of opinion that though these Acts provide the essential for participation of private entities in outer space but it still lacks crucial provisions, which would foster the participation of the private sector in space activities. Ms. Shruti Prabhakar has pen down Chapter 6 of the book - 'Legal Response to Private Space Activities in Japan'. She finds that there has been significant change in Japan's approach. While the 2008 Basic Space Law provides the foundation of Japan's space activities, it is the 2016 Space Activities Act that provides the legal framework for commercial space activities in Japan. The Chapter attempts to do critical analysis of the 2016 Act.

Sandeepa Bhat has contributed Chapter 7 of the Book titled as 'National Space Law for India: A Reality Check'. He factors the reasons for national space legislation in India, which is largely flowing from the Treaty obligations of India. He talks about the liability aspects that India would be incurring as a 'launching state'. Authorisation of space activities, registration of space objects, state responsibility are yet another strong reasons, he foresees for enacting a space law. He finds that insurance mechanism to cover liability for damages is not very productive and advocates for creation of a space liability fund. A critical analysis of 2017 draft Bill has also been presented and his suggestion is that drafting efforts should involve legal experts and not merely confined to the scientist. Ms. Ishita Das in Chapter 8 has presented 'A Review of the Draft Space Based Remote Sensing Policy 2020: Challenges and Opportunities'. In this Chapter, followed by a brief overview of the 2011 Remote Sensing Data Policy, she attempts to explore the essential features of the 2020 draft Space Based Remote Sensing Policy and highlights the scope for further refinement. She finds that 2020 policy is geared towards the greater participation of non-governmental entities. K. R. Sridhar Murthi and V. Gopalkrishnan have jointly authored Chapter 9 - 'Unlocking India's Space Sector: Legal & Policy Challenges'. In this chapter they have suggested a multipronged strategy for the growth of commercial space activities. Briefly reflecting upon the legal and policy

challenges, initiatives of the Government in introducing reforms in space sector have been touched upon.

Deva Prasad M, has authored Chapter 10 – ‘The New Space and the Emerging Challenges for the International Space Law Framework’. Greater privatisation, advancement in technology and greater commercial interest has been considered as the elements of ‘New Space’. He is of opinion that time has come for adaptive approach to governance and laying guiding principles for exploitation of space resources in an inclusive way. In Chapter 11, Vishaka Singh Deshwal discusses ‘National Responses to the Use of Orbits and Spectrums’. The Chapter attempts to clarify the meaning of orbits and its type, spectrums’ and their international regulatory mechanism including procedure for spectrum allocation. A brief comparative study of spectrum allocation in select jurisdiction highlighting the gaps in spectrum allocation has also been attempted. Nilay Raj in Chapter 12 presents ‘Legal and Policy Aspects of Space Militarization’. He is of opinion that there is need for a body parallel to the UNCOPUOS that can monitor, verify and recommend actions in the interests of space security and can bridge gaps between national approach and international space law. Environmental concerns in outer space vis-a-vis status of outer space as *res communis* has been presented in Chapter 13 - ‘Environmental Hazards in Outer Space: The Glaring Need for Domestic Laws’ jointly authored by Dr. Rohit Roy and Amrisha Tripathi. Space Debris is a major concern in outer space. Dr. Tomasz Balcerzak and Rongheet Poddar have jointly made an appraisal in Chapter 14 titled as ‘Mitigating Space Debris under the National Space Legislation’. They analyze the ILA Debris Mitigation Model, make a study of national legislations of select jurisdiction to address the debris problem and suggests for consideration of sui generis treaty on space debris.

Chapter 15 authored by Asha P. Soman – ‘Space Crew Insurance: Feasibility of Life Insurance at the National Level’ studies national legislation of select jurisdictions to understand if life insurance coverage has been guaranteed to astronauts. She proposes for ‘space crew insurance’ to cover the risk involved in journey to outer space. Chapter 16 (‘Exploring the Issues of Criminal Jurisdiction and Liability in Outer Space: What should be India’s Approach’ by Ranu Tiwari) and 17 (‘Time to Tax the Space Economy: Need for a Giant Leap Forward in the taxation Regime’ by Gazal Sancheti and Varada Jahagirdar) cover issues related to crime in space and tax aspects of commercial space activities respectively. In Chapter 18 (Responsible Use of AI in Outer Space: Development of Regulatory Governance and some Concerns) Shovik Kumar Guha and Maathangi Hariharan argue that national space legislation should start regulating use of artificial intelligence in outer space activities. Jennifer A Brobst in the last Chapter (Public Health Common Law in Space) presents the health related crisis that may occur to humans in outer space. A study of public health law in some of the Common law countries to

understand if these laws would be sufficient to address the health crisis in space has been present. The author recommends that a stricter application of public health authority to support enforcement and general safety than it would be applied generally on earth.

Overall the book has touched upon various aspects of national space law in the context of privatization of space. Some of the Chapters have also reflected upon the emerging issues in outer space and have reflected upon national laws to understand if the solution lies in the existing laws or future laws need to be shaped to address these problems.

Kumar Abhijeet*

* Ph. D. from University of Cologne, and presently Legal Officer, Legal and Treaties Division, MEA, Govt of India.