

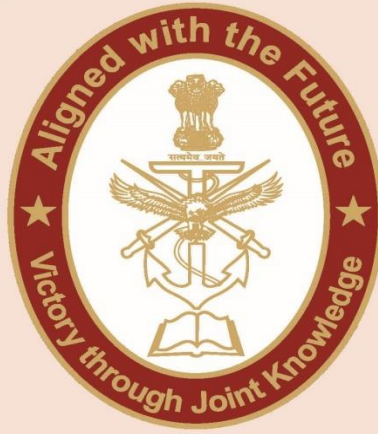


CENTRE FOR JOINT
WARFARE STUDIES

CHINA'S 14TH FIVE YEAR PLAN: MILITARY LESSONS

ANUSHRUTI NARANG

CENTRE FOR JOINT WARFARE STUDIES



CENJOWS

CHINA'S 14TH FIVE YEAR PLAN: MILITARY LESSONS



Anushruti Narang, is an undergraduate student pursuing Political Science Honours from University of Delhi. She is also enrolled at Meiyu Language Centre to study Mandarin and has cleared HSK1, 2 levels.

Abstract

A derivative of National Security Strategy, military strategy when aligned with national objectives, bolsters a nation's Comprehensive National Power (CNP). Officially adopted on March 11, 2021, the 'People's Republic of China 14th Five-Year Plan (FYP) for National Economic and Social Development and Long-Range Objectives for 2035', aligns with China's over-arching dream of Great Rejuvenation. Containing 19 sections (篇; Piān), 65 chapters (章; Zhāng), and 175 sub-sections (小节; xiǎo jié), the Plan dreams of attaining the PLA's Centennial Goal of a modernised military on the way to actualising the Chinese dream of a Strong Military. By seeking to implement a Military Strategic Directive for a New Era, the 14th FYP, further amplified by Central Military Commission (CMC) Chairman Xi Jinping's speech in October 2022, actively pursues enhanced strategic deterrence, Talent Development, accelerated integrated development of Mechanisation, Informatisation and Intelligentisation. This paper attempts to examine PRC's 14th FYP comprehensively while drawing out military lessons for India.

Research Objectives

- To study China's 14th FYP and related official Chinese documents in detail.
- To highlight the military significance of this FYP.
- To study the PLA's objectives for modernisation.
- To draw military lessons for India.

Research Questions

- What are the quantifiable military objectives of China in the 14th Five-Year Plan?
- How does it impact India?
- What are the key lessons for India?

Introduction

"This new military revolution in the world provides our military with a rare historical opportunity, as well as a serious challenge. The opportunity is fleeting. If you seize it, you can take advantage of the situation. If you can't grasp it, you may miss an entire era."

-Xi Jinping ¹

The nationalist ambitions of China, under Xi Jinping's 'Chinese Dream for National Rejuvenation', have primarily focussed on 'Revolution in Military Affairs (RMA) with Chinese Characteristics' to establish People's Liberation Army (PLA) as a 'World-Class Army' by 2049 and achieve basic modernisation of national defence and military forces by 2035. During his speech at 20th National People's Congress, Xi has reiterated the need to "build a strong strategic deterrent force system" (打造强大战略威慑力量体系; Dǎzào qiángdà zhànlüè wēishè lìliàng tǐxì). Appropriately, People's Republic of China's (PRC) Five Year Plans (FYPs) have been synchronised with the two Centennial Goals of PLA's centenary in 2027 and PRC's centenary in 2049. Through time-bound directives to the PLA, State Council, as well as private and public enterprises, the Chinese FYPs thereby enable a "Whole of Government" approach for the dual-purpose comprehensive modernization of the PLA—organization, doctrine, infrastructure, and technology.²

Broadly, the 13th FYP's military objectives were aligned towards:

- national defence build-up by eliminating first generation equipment from the PLA and drastically reducing second generation equipment;
- making China enter the ranks of Great Space Powers;
- complete PLA's mechanisation by 2020 through induction of third and fourth generation highly mobile equipment with precise firepower platforms in batches;
- achieve significant Informatisation and basic Intelligentisation with informatised third generation equipment as main body and fourth generation intelligentised equipment as backbone.

With this renewed focus, China's defence industry outperformed the Shanghai Composite Index for three consecutive years for the first time in 2020. In the backdrop of the significant progress of the 13th FYP through PLA's three-pronged military reforms, this issue brief seeks to examine crucial military lessons for India from the Chinese 14th FYP.

Military Objectives – 14th FYP

*“We will improve the modern corporate system with distinctive Chinese features, encourage entrepreneurship, and move faster to help Chinese companies become world-class outfits... We will advance new industrialization and move faster to boost China’s strength in manufacturing, product quality, **aerospace, transportation, cyberspace,** and digital development. We will consolidate our leading position in industries where we excel, work faster to shore up weaknesses in sectors vital to China’s development security, and improve our **capacity for securing the supply of strategic resources**... We must regard **science and technology as our primary productive force, talent as our primary resource, and innovation as our primary driver of growth**.... We will accelerate the development of China’s discourse and narrative systems, better tell China’s stories, make China’s voice heard, and present a China that is credible, appealing, and respectable... We will adopt more proactive, open, and effective policies on talent and **encourage our talent to love the Party**.... We will strengthen the safeguards for ensuring economic, major infrastructure, financial, **cyber, data, biological, resource, nuclear, space, and maritime security**. We will improve the allocation of national security resources and create a coordinated, multi-dimensional, and highly effective system for **protecting national security across all domains**... Achieving the **goals for the centenary of the People’s Liberation Army in 2027 and more quickly elevating our people’s armed forces to world-class standards** are strategic tasks for building a modern socialist country in all respects. To this end, we must apply the thinking on strengthening the military for the new era, implement the military strategy for the new era, and maintain the **Party’s absolute leadership over the people’s armed forces**.... We will improve the institutions and mechanisms for implementing the **system of ultimate responsibility resting with the chairman of the Central Military Commission**.”*

-General Secretary Xi Jinping during the 20th Party Congress Report – October 2022 ³

As regards to the 14th FYP from 2021–2025, the recent 20th Communist Party of China (CPP) Congress report from October 2022 reinforced the imperative of army building and published an updated list of planned reforms. The Part 16 of the official PRC’s 14th FYP enunciates the goal to ‘Accelerate national defence and armed forces modernization and achieve the mutual unity of a rich country and a strong military’. The key military objectives within the 14th FYP’s framework from various Chinese documents are summarised below in succeeding paragraphs: ^{4,5,6,7,8}

- The Central Military Commission (CMC) aims to increase the quality and effectiveness of PRC's national defence and armed forces modernization through a three-step process to develop a world-class Army by 2049. Although not officially declared, the term 'world-class' translates into the capability of surpassing the US defence forces. It aims to accelerate the modernization of the PLA's military doctrine, institutional arrangements, military personnel, weapons, and equipment while bolstering the nation's defence and economic prowess. Additionally, the 20th CCP Congress report mentioned reforms of military academies, military logistics, resource management and military training including confrontation training, Science and Technology (S&T) training.
- Aligned with the PLA's prime strategic direction, the 18th part of the 14th FYP underscores the concept of 'One-Country, Two-Systems'. Furthermore, it reiterates the need for PRC's reunification with Taiwan or Republic of China (ROC).
- **Three Modernisations** It promotes highly developed Mechanisation including elimination of second-generation equipment, achievement of high-level Informatisation, and basic level of Intelligentisation through 'Human in Loop' level of automation and introduction of basic Manned-Unmanned Teams. The 20th CPC Congress report further stressed on Intelligentisation, presenting a guideline to speed up the development of unmanned intelligent systems (加快无人智能作战力量发展; Jiākuài wú rén zhìnéng zuòzhàn lìliàng fāzhǎn).

In its pursuance of '**Maritime Great Power**' dream, PLA aims to develop offshore defence capability for which it is likely to develop fully trained three Carrier Battle Groups and construct one more aircraft carrier.

- **Space Power** PRC intends to complete National Civil Space Infrastructure by 2025, and set up a near-Earth asteroid defence system by 2025-26. It also intends to place 3960 Low-Earth Orbit satellites in the orbit by 2027.
- **Made In China 2025** The 14th FYP envisions to propel China into the ranks of manufacturing superpowers through greater self-reliance and digitization of more than 70% of its large-scale firms. It centrally places innovation in its dual-purpose modernisation drive.
- **Science and Technology (S&T) Powerhouse (科技强国; Kējì qiángguó)** Alongside the 14th FYP, CPC undertook a three-year period

of reforms of Chinese State-Owned Enterprises (SOEs) from 2020 to 2022. Xi, during the 20th Party Congress report, reiterated the aim to further deepen reform of state-owned capital and SOEs to enhance their core competitiveness to:

- refine S&T innovation institutions and mechanisms,
- develop natural S&T resource banks (自然科技资源库; Zìrán kējì zīyuán kù),
- to have S&T self-reliance and self-improvement (科技自立自强; Kējì zìlì zìqiáng),
- and achieve major breakthroughs in key and core technologies (关键核心技术; Guānjiàn héxīn jì).

Moreover, PRC aims to implement the Intellectual Property Powerhouse (知识产权强国; Zhīshì chǎnquán qiángguó) strategy through establishment of strategic national laboratories focussing on pioneering technologies such as Quantum, Artificial Intelligence (AI), Integrated Circuit (IC), Brain Science and Brain-Inspired Research, Deep Space, Deep Earth, Deep Sea, and Polar Exploration, and other major innovation fields.

- **Research and Development (R&D) Powerhouse** To lead the world in Intellectual Property Rights, the Chinese State Council has been empowering its R&D by focussing on development of dual-purpose key technologies such as AI, 5G, big data and edge computing.
- **Manufacturing Powerhouse (制造强国; Zhìzào qiángguó) and Quality Powerhouse (质量强国; Zhìliàng qiángguó)** The PRC intends to accelerate the development of a modern manufacturing infrastructure system by intensifying the implementation of the smart manufacturing powerhouse strategy, development and expansion of strategic emerging industries and revitalising the private industry to enhance quality as well as mass produce quantity.
- **Talent Powerhouse** CPC intends to pace up the desire to build world hubs for talent by encouraging innovative vitality and elevating citizen quality particularly those with expertise of strategic importance. Xi has repeatedly asked the Party and PLA to nurture talent as a strategic resource. It aims to do so by stimulating the innovative vitality and improving the quality of citizens (国民素质; Guómín sùzhì) to

cultivate world-class (国际一流; Guójì yīliú) talent by optimisation of the ecosystem of innovation, entrepreneurship, and creativity. Resultantly, CMC plans to develop a new military talent unit for PLA through a series of military policy reforms and establishment of a three-in-one novel military talent training system.

- **Digitisation** To pursue Informatisation and Intelligentisation, PRC aims to accelerate her digitalization-based development. It visualizes to boost the value of core digital economy industries as a proportion of GDP (%) from 7.8% in 2020 to 10% in 2025. It also aims to enhance the IoT access capabilities of broadband-narrow integration and fixed-mobile integration. It also lays emphasis on implementation of 'East Data and Western Computing' project while strengthening intelligent scheduling and computing power coordination.⁹ The deputy director of the Information Technology Development Department of the Ministry of Industry and Information Technology, Wang Jianwei noted that the Ministry will focus on six key areas after attaining the goal of the 10% boost. Some of the objectives are: strengthening iterative applications in high-end chips, sensors; implementation of a gigabit optical fiber broadband; optimization of IPv6 performance capabilities; cultivation of "specialized, special and new" enterprises; and implementation of National Data Management Standard (DCMM).¹⁰
- **Chip Self-Sufficiency.** Since digitisation and the Three Modernisations of PLA particularly, Informatisation and Intelligentisation primarily rest on requisite production of desired chips, PRC aims to build the world's largest chip supply chain by 2030. Apropos, CMC strives to achieve Chip Self-Sufficiency by supporting indigenous, to defend against American restrictions. And therefore, has planned 'China Integrated Circuit Industry Investment Fund', or, the "Big Fund", encompassing nearly RMB 1.5tn (\$221bn) of public and private investments to replicate a chip supply chain within mainland China. The fund allocation for Phase 1 and Phase 2 is \$20.7bn and \$30.47bn respectively. CCP is additionally providing nearly 10 years of corporate income tax exemption for chip makers operating for over 15 years as they plan to enlarge chip production capacity by construction of 31 new chip factories by 2024.
- **Innovation Leader.** Xi has given 'Innovation' the top most priority amongst PRC's five development concepts. CCP aims to make China enter the first rank of innovation-oriented countries by increasing high-value invention patents held per 10,000 people (patents) from 6.3 in 2020 to 12 in 2025 through development of new types of innovative entities. At completion of 14th FYP, China aims to become an

Intellectual Property Powerhouse (知识产权强国; Zhīshì chǎnquán qiángguó) through reforms of the ownership and rights allocation mechanisms for state-owned IPR and expanding the autonomy of scientific research institutions and institutions of higher education in terms of IPR disposal. The 14th FYP lays down development of international S&T innovation centres in Beijing, Shanghai, and the Guangdong-Hong Kong-Macau Greater Bay Area and comprehensive National Science Centres in Huairou in Beijing, Zhangjiang in Shanghai, the Greater Bay Area, and Hefei in Anhui.

- **Quantum Technology**. PRC aims to be a path breaker in quantum technology by the end of 14th FYP. It is accordingly developing R&D of intra-city, inter-city, and free-space quantum communication technologies; general quantum computing prototype and a practical quantum simulator; and is aiming for breakthroughs in quantum precision measurement technology.
- **Transportation Powerhouse (交通强国; Jiāotōng qiángguó)**. The dream for becoming a Transportation Powerhouse includes strengthening the construction of strategic backbone corridors out of Xinjiang and into Tibet, development of an express rail network by laying down the “eight vertical and eight horizontals” (“八纵八横”; Bā zòng bā héng) high-speed railways. Furthermore, CCP aims to increase the depth of transportation accessibility by constructing highways along and to borders, and promoting the construction of “four good rural roads” (“四好农村路”; Sì hǎo nóngcūn lù).

PLA's Objectives

“We will establish a strong system of strategic deterrence, increase the proportion of new-domain forces with new combat capabilities, speed up the development of unmanned, intelligent combat capabilities, and promote coordinated development and application of the network information system.

We will improve the command system for joint operations and enhance our systems and capacity for reconnaissance and early warning, joint strikes, battlefield support, and integrated logistics support.

We will intensify military training under combat conditions, laying emphasis on joint training, force-on-force training, and high-tech training. We will become more adept at deploying our military forces on a regular basis and in diversified ways, and our military will remain both steadfast and flexible as it carries out its operations. This will enable us to shape our security posture, deter and manage crises and conflicts, and win local wars.”

-CMC Chairman Xi Jinping – 20th Party Congress Report – October 2022¹¹

World-Class Military. CPC's General Secretary Xi Jinping clearly elucidated **National security as the bedrock of national rejuvenation** during the 20th Party Congress Report. He further said '*We have set the Party's goal of building a strong military in the new era.... With new systems, a new structure, a new configuration, and a new look, the people's armed forces have become a much more modern and capable fighting force, and the Chinese path to building a strong military is growing ever broader*'. The PLA's key objective is to become a world-class military by 2049 with intermediate timelines in between 2035 and 2027 which is nearly the end of 14th FYP. Hence, it is important to understand Chinese perspective or definition of a world-class military as defined by the PLA's theorists. It is a composite, dynamic, historical, and comparative concept as per them with following major guidelines as elaborated below: ^{12,13}

- The Chinese article - 'Hold high the ideological banner of a strong army, build a world-class army (高举强军思想旗帜建设世界一流军队; Gāojǔ qiáng jūn sīxiǎng qízhì jiànshè shìjiè yīliú jūnduì)' quotes, "A **world-class military is the righteousness of a world-class power**," wherein they state that PLA's modernisation, being one of the most important elements, is also a significant indicator of PRC's modernisation.
- PLA's comprehensive build-up of strength must ensure PRC's security and its progression from a big to strong nation overcoming all resistance and pressure by adversary countries regionally and globally.
- It must enable achievement of the PRC's "two centenary" goals thereby facilitating realization of the Xi-led Chinese dream of the 'Great Rejuvenation of the Chinese nation'.
- PLA should be amongst the best militaries in the world by 2049 by ensuring coherence of CPC's goals and PLA's missions and tasks which basically means ensuring the unchallenged rule of CPC over the Chinese nation and reunification of Taiwan.
- Chinese military revolution must become the defining moment for the rise of PLA's military strength to stay in the forefront in the modern era thus enabling the corresponding rise of the overall national strength.

- PLA must seize the strategic opportunity of world-wide technological revolution, organisational reforms, and military doctrinal evolution to gain the international military competitive advantage by resolving long-term accumulated institutional obstacles, structural contradictions, and policy limitations.

Elements of World-Class Military. The Chinese military institutions define the four essential elements of world-class military as under ¹⁴ : -

- Modernisation of Military Theory. Chinese consider doctrinal evolution as the primary element in order to evolve a modern, leading, and unique military theory system.
- Modernisation of Military Organization. CCP considers PLA's organisational structural reforms as guarantee, and mechanism that conforms to the law. The key intention is to have a political monitoring mechanism at all levels to ensure Absolute Loyalty to the Party.
- Modernisation of Military Personnel. CMC considers Military Policy reforms as the core, to induct, retain and harness high-quality talent to forge a phalanx of high-quality professional new military personnel.¹⁵
- Modernisation of Weapons and Equipment. An obvious essential, PLA wants to focus on a diverse array of weapons and equipment for the intelligentised modern battle-space.

Standards for a Comprehensive World-Class Military. As mandated by Xi Jinping's thought of strengthening the army, the desired standards of world-class military are as under ¹⁶: -

- Absolute Loyalty. PLA must be under the absolute leadership of the CPC, obeys the party's command and then only will be able to win battles.
- Informatisation and Intelligentisation of the new combat force.
- PLA's strengths must be commensurate with PRC's status as a powerful country, capable of comprehensively and effectively safeguarding national sovereignty and territorial integrity as also capable of exerting strong international influence.
- Lead the world in the international competition of defence science and technology.

Furthermore, all PLA cadres have been strictly asked to study Xi's authoritative series of basic textbooks - "Xi Jinping on State Administration

and Administration", "Xi Jinping on Strengthening the Army and Rejuvenating the Army", "Xi Jinping's Outline for Studying Thoughts on Socialism with Chinese Characteristics for the New Era", and "The Outline for Studying Xi Jinping Thought on Strengthening the Army".¹⁷

The PLA's Science of Military Strategy (SMS) 2020, in coherence with other official Chinese documents, has laid down certain objectives for all its services, elucidated in the succeeding paragraphs.¹⁸ Considering the SMS are released at a five-year interval, these objectives can be assessed for the upcoming five years and are therefore in accordance with the 14th FYP.

PLA Ground Forces (PLAGF):

- Accelerate miniaturization, versatility, and modularization through cross-domain mobility transformation for realisation of regional defence.
- Improve precision operations, three-dimensional and global combat capability both offense and defence.
- Special focus on Medium and long-range precision strike capability.
- Three-dimensional mobility, and assault, Field Air Defence, and Special operations capabilities.

PLA Navy (PLAN):

- "Near-Seas Defence, Far-Seas Protection, Oceanic Presence, expansion into the two poles".
- Build a joint, multi-tiered and efficient maritime combat force system to improve strategic deterrence and counterattack with progressive transformation to offshore defence and far sea escort and protection.
- Special focus on Sea-based strategic deterrence and counterattack, High-sea mobile combat, Integrated offshore combat, Comprehensive Sea area control, Amphibious combat, Comprehensive Maritime Support, and Non-war military operations capabilities.

PLA Air Force (PLAAF):

- Establish an integrated air and space system for homeland defence and offensive operations.
- Special focus on AEW, Air offensive, AD and anti-missile, Airdrop delivery, and Base support capabilities.

PLA Rocket Force (PLARF):

- Accelerate the Informatisation transformation through indigenous S&T and independent innovation to build lean and effective nuclear and conventional rocket force for Comprehensive Strategic Deterrence.
- The recent US report assesses that China is expanding its nuclear forces.

Strategic Support Force (SSF):

- In the space domain, SSF aims to focus on Spatial information support, Space control, Space offensive and defensive, and Support capabilities for space military activities. In the cyberspace domain, SSF intends to focus on reconnaissance, attack, protection, Network operation and maintenance recovery capabilities.

Strategic Deterrence and Methods Xi, in his 20th Party Congress speech in October 2022, had clearly elucidated the need to strengthen PRC's strategic deterrence. However, the SMS 2020 had already clarified PLA's intentions of various methods to be adopted to display China's deterrence to its adversaries as listed below straight from the SMS 2020. ¹⁹

- *'Create an atmosphere of war.'*
- *'Show advanced weapons.'*
- *'Holding military exercises.'*
- *'Adjust military deployment.'*
- *'Raising the level of combat readiness.'*
- *'Implementing information attacks.'*
- *'Restrictive military operations.'*
- *'Warning military strikes.'*

Lessons for India

- **Deterrence Ladder** PRC has nearly executed all steps listed above against India, pushing the limits of deterrence. Its strategy of 'reactive assertiveness' is evident in its Taiwan contingency of coercive reunification with mainland China. Thus, soon, PLA will carry forward its massive pompous military parades, propaganda of advanced weapons, large-scale military exercises with extensive photo operations, revision of military deployments, unrelenting cyber-attacks against critical information infrastructure, airspace violations and land incursions. Japan has adopted a strategy of meeting Chinese reactive assertiveness with 'quiet deterrence' as cited by Asia Pacific Initiative. To avoid an outburst of reactive nationalism of the Chinese, Japan has

chosen to maintain strategic communications with PRC while simultaneously carrying out risk and crisis management.²⁰ However, the Indian response differs from the Japanese response and has gradually developed over the years. The recent border disputes and clashes have pushed for a firmer stand. Resultantly, it is vital that India develops multi-domain resilience, unveils Chinese Go moves, stands tight and tall while calling out the Chinese for their bluff.

- **Space** In its pursuit of surpassing the US space program, PRC has followed 'three spirits' – the traditional spirit, two bombs-one satellite spirit and crewed space spirit.²¹ ²² CPC's policy announcements in the last couple of years have aimed at growth of PRC's private aerospace companies. And the nation has actively pursued a robust growth of approximately 95,000 space-related enterprises ²³ which are attracting more financing than ever. In 2021, China has launched space missions, higher than the numbers of the American and Asian missions combined. While China placed 115 spacecrafts through 55 launches, India only launched two missions. Furthermore, PRC's White Paper on its Space Program 2021 notes numerous space collaborations, especially with Russia and Pakistan.



Source: [CCTV News](#)

Contrasting the Sino-Indian space capabilities, Air Marshal Anil Chopra (Retd) presented an example of the Chinese Long March 5's capacity of carrying five-times the payload of India's heavy-lifter the 4-tonne GSLV-Mk3.²⁴

While we significantly lag in our space capabilities, India needs to accelerate funding and proactively encourage its private space industry which is at a nascent stage with the first private launch in December 2022. In addition, Defence Space Agency (DSA) and Defence Space Research Organization (DSRO) established in 2019 can further facilitate the formation of an authoritative space warfare

strategy and doctrine. It is pertinent for the fulfilment of our strategic objectives in space, that these organisations provide guidelines crucial in maintenance of space deterrence through use of offensive capabilities.^{25,26} The ISRO along with many private sector organisations should encourage tech-transfers. The China Aerospace Science and Industry Corporation Ltd (CASIC) is tasked with the propagation of China's space program amongst the youth through educational activities.²⁷ The Indian Institute of Space Science and Technology too can follow the same road.

- **R&D** China has gradually increased its GDP share on R&D from 2.00% in 2020 to 2.04% in 2021 to 2.10% in 2022. Coupled with rising GDP, China has increased its expenditure on R&D from 460.2 billion US\$ in 2020 to 551.1 billion US\$ and is at second position in the world. On the contrary, India, at seventh position, has contrarily reduced its R&D expenditure from 67.6 billion US\$ (15% of Chinese expenditure) in 2020 to 65.2 billion US\$ (paltry 12% of Chinese expenditure) in 2022.²⁸ India needs to spend much more on R&D to succeed in its 'Atmanirbhar Bharat' approach for indigenous development of dual-purpose technologies facilitating both civilian and military fields alike.

➤ **Figure: China's Rising R&D Budget**

GLOBAL GROSS EXPENDITURES ON R&D (GERD)										
Global rank	Country	GDP BILLIONS US\$, PPP	2020 R&D SHARE GDP	GERD BILLIONS US\$, PPP	GDP BILLIONS US\$, PPP	2021 R&D SHARE GDP	GERD BILLIONS US\$, PPP	GDP BILLIONS US\$, PPP	2022 R&D SHARE GDP	GERD BILLIONS US\$, PPP
1	United States	19,847	3.04%	603.3	21,038	3.06%	643.8	22,131	3.07%	679.4
2	China	23,010	2.00%	460.2	24,851	2.04%	507.0	26,243	2.10%	551.1
3	Japan	5,225	3.40%	177.6	5,350	3.30%	176.6	5,521	3.30%	182.2
4	Germany	4,239	3.10%	131.4	4,370	3.13%	136.8	4,571	3.13%	143.1
5	South Korea	2,188	4.35%	95.2	2,282	4.40%	100.4	2,357	4.50%	106.1
6	France	2,832	2.25%	63.7	3,011	2.22%	66.8	3,128	2.19%	68.5
7	India	8,443	0.80%	67.6	9,246	0.70%	64.7	10,031	0.65%	65.2

Source: [2022 Global Funding Forecast by R&D World](#)

- **Manufacturing Quality and Quantity** While enhancing quality PLA wants both public and private industries to simultaneously mass produce desired quantity. Hence, CPC intends to maintain dominance in high-end rare earth functional materials, and make breakthroughs in the key technologies of intelligent robots such as advanced controllers, high-precision servo drive systems, and high-performance reducers; Develop additive manufacturing. While China is filing its patents at a

rapid pace, and ensuring dominance of critical minerals, India needs to pace up its build-up of defence start-ups and industry as also the government needs to ensure assured supply of essential minerals.

- **Transportation** Chinese development and extension of new and existing highways near Tibet-India border pertains to facilitation of build-ups and side-stepping of its military assets in Western Theatre Command. For instance, the plan calls for upgradation of the G219 and G318 national highways, which run parallel to the Sino-Indian border, close to Ladakh and Arunachal Pradesh.

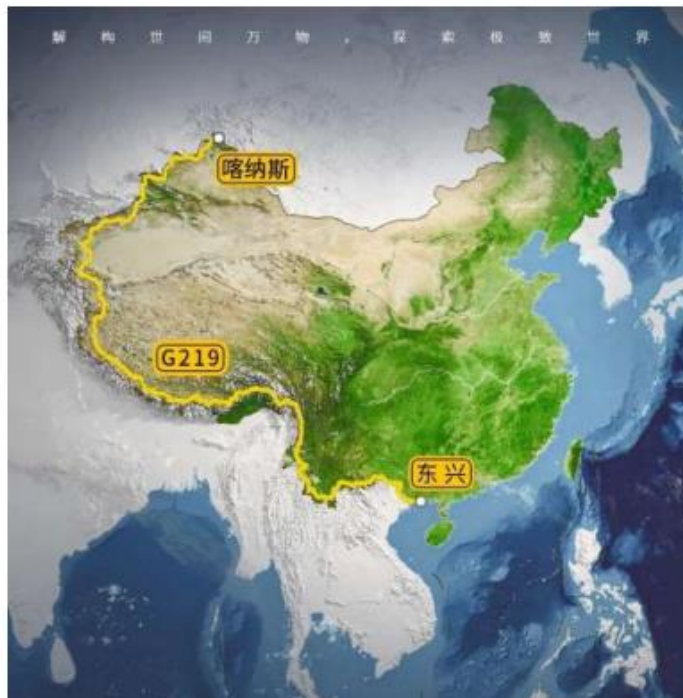
Project Description	Project Details
Roadways	
National Highway G6/ G109	G109 connects Beijing to Lhasa. The G6 is the portion that connects Lhasa to Xining in Qinghai. The construction for the 1,897 km Xining-Lhasa stretch began in February 2018 [2].
National Highway G219 / G564	G219 connects Xinjiang to Tibet. It originates from Yecheng in Xinjiang and terminates at Lhatse in Tibet. The road was constructed in 1957, however, under 13th FYP, China started upgrading it. G564 will emerge from G219 and will reach Purang near the China-India-Nepal tri-junction. It will pass between Mansarovar and Rakshas lake.
National Highway G318	The 14th FYP discusses the extension of G318. G318 connects Shanghai to Tibet through Chengdu in Sichuan. It then enters Nepal near Zhangmu near the China-Tibet border. The road passes through Nyingchi, close to the China-India border near Arunachal Pradesh, and a feeder road originating from G318 also reaches opposite Tawang near Cono county.
National Highway G317	G317 originates in Chengdu, Sichuan and runs parallel to G318 through Chamdo and Nagqu before meeting G109- which meets G318 at Lhasa.
National Highway G 580	G580 is currently under construction, and on completion, will connect Ashu to Kangxiwar through Hotan. It would be completed by 2022.
Other Important Highways	G315 (East-west highway connecting Qinghai and Xinjiang); G314 (connecting Urumqi and Khunjerab Pass); G216 (linking northern Xinjiang to Kyirong County in Tibet by meeting G218 near Hejing county in Xinjiang).
Other Important Roads/Provincial Highways/Feeder roads	Pei-Metok Highway (Nyingchi to Mehtok), Lhasa-Nagqu highway, Nagqu-Ngari Ali Highway, Bome to Medok Highway, Qiongjie to Cona Highway, Bayi-Manling Highway, G214 Kunming-Lhasa Highway and more.

Source: Suyash Desai, [Jamestown China Brief](#)

Railroads	
Sichuan-Tibet Line	Divided into three sections: 1) Chengdu to Ya'an Section (140 km): Opened in December 2018 2) Lhasa to Nyingchi Section (435 km): Opened in June 2021 3) Ya'an to Nyingchi Section (1,011 km): Estimated to finish by 2030.
Qinghai-Tibet line	The construction began in 2001 and was completed by 2006. This line was further extended up to Shigatse in 2014. The only railway that connects China proper to Tibet.
Shigatse-Yadong Extension	The Lhasa-Shigatse line will be further extended from Shigatse to Yadong County. Yadong County is the last county on the China-India border near Sikkim and adjacent to India's Nathu la pass.
Shigatse-Gyirong-Katmandu (Nepal)	To be completed by 2022.
South Xinjiang-Tibet Loop	Hotan-Shigatse line (825 km – under construction) largely follows G219 route – unknown if it would enter Aksai Chin region like the highway, Hotan-Ruoqiang line (Xinjiang – under construction), Ruoqiang-Korla Section of the Golmund-Korla line (in operation since 2014) and Gomund-Lhasa Section of the Qinghai-Tibet line (in operation since 2006). Together, these lines form the Tibet-South Xinjiang loop connecting most major cities in the region.
Other Important lines	Yunnan-Tibet line (still planned); Dunhuang-Golmud Railway (opened in 2019).

Source: Suyash Desai, [Jamestown China Brief](#)

The G219, a unique lateral has been extended from Xinjiang through Tibet to Vietnam, running parallelly close to the Indian border.



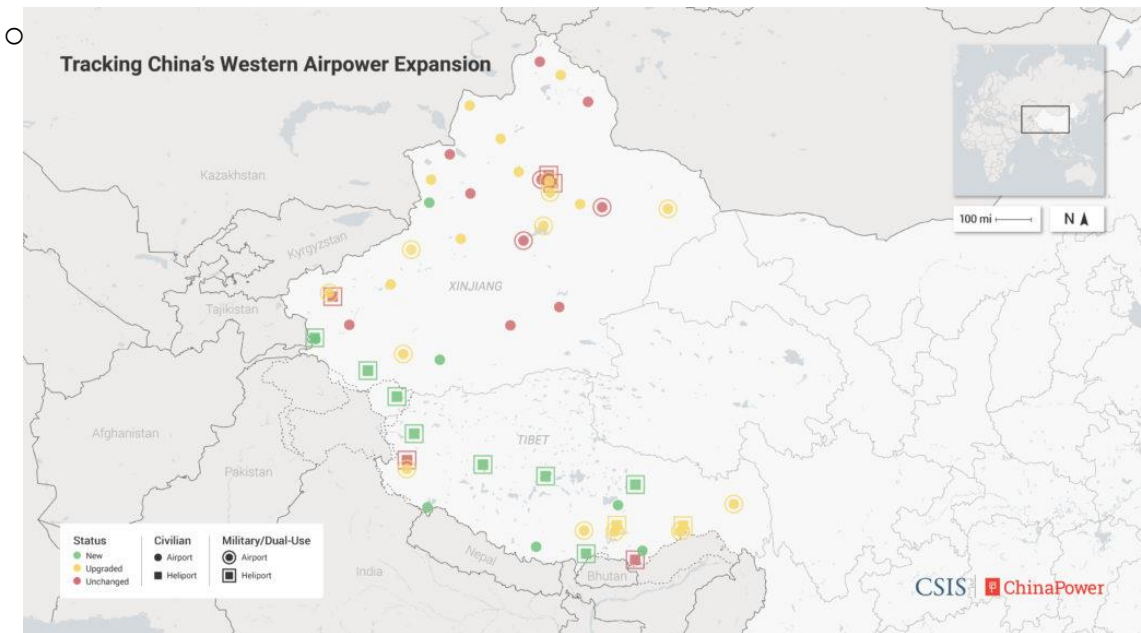
The construction of another lateral – the G695 extends to the South-West of G219, close to Indian border. Each forward road in Tibet and Xinjiang provides PLA the competence to build up forces much faster.

India has announced its own Arunachal Pradesh expressway – a 1,748 km long two-lane road termed as the NH-913 highway, along the China-India-Tibet-Myanmar border. This holds immense strategic significance in withholding migration from border areas along with provision of seamless movement of weapons, equipment, and troops for holding and arming disputed posts/ posts marked by Chinese incursions.²⁹ While this initiative is commendable, there is a further need of pacing the Prime Minister's 'Gatishakti' scheme for enhanced road connectivity as urgently possible.



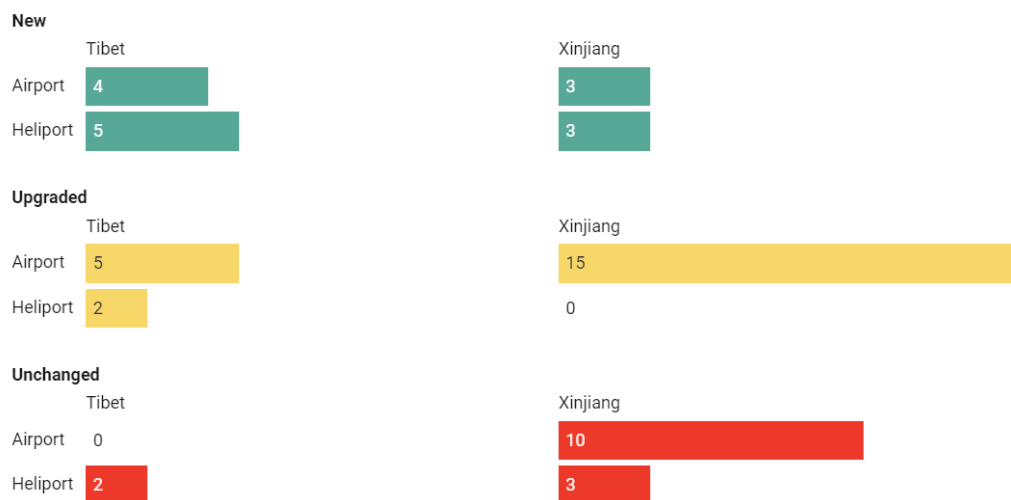
Source: [The Times of India](https://www.thehindu.com/news/national/article6666666.html)

The plan also enlists the development of the Chengdu-Chongqing “world-class” airport cluster, and expansion of the Chongqing Jiangbei International Airport. It further calls for construction of 30 airports in addition to the 12 existing airports (operational or under construction) located in Tibet and South Xinjiang region.³⁰



Source: [CSIS China Power](#)

Status of Air Facilities in Tibet and Xinjiang



Source: [CSIS China Power](#)

- Grey-Zone** Under the leadership of Xi Jinping, the Chinese, have mastered the art of grey-zone standoffs with Vietnam, Philippines, Japan etc. This has been witnessed in subsequent standoffs since 2014, wherein the Chinese have sought to exploit their salami-slicing tactics. The Yangtse incident witnessed the Western Theatre Command's troops' attempt to capture an Indian occupied post stands as a testament to this tactic. Further, Xi in October 2022, has reinforced the need for PLA to be 'more adept at deploying on a regular basis'. While PLA's battle-experience has been deemed inadequate and its troops have been labelled soft, one must recall their mastery in

standoffs and expect strikingly similar instances until the fulfilment of their alteration of the ground realities in their own favour.

- **Whole of Government Approach for Enhanced CNP.** Xi clearly wants to build its military capacity to a level mirroring its economic prowess under the Diplomatic, Information, Military and Economic (DIME) paradigm of building CNP. India too will be the second or third largest economy by 2047, the 100 years of Independent India. On lines of 'Gatishakti' scheme, Indian government needs to adopt a 'Whole of Nation' approach for '**Sainya Shakti 2047**' wherein our defence forces can match with PLA before its actualisation of its dream of 'world-class' military by 2049.
- **National Defence Strategy** Within the overall umbrella of Chinese national strategy of 'the great rejuvenation of Chinese nation', the SMS 2020 provides valuable insights into PRC's military strategy under Xi Jinping's leadership. The US Department of Defence Report of 2022, highlights PLA's new core operational concept called 'Multi-Domain Precision Warfare'.³¹ Apropos, the Chinese websites, both official and unofficial are flooded with the takeaways from the Russo-Ukrainian war. The numerous articles analyse the Russian inadequacies in integration of services, absence of synergy in conduct of Electronic Warfare and Air Defence operations, quantum of missiles and drones used and methods followed to increase production, counter measures against Western sanctions, conscription problems, role of social media and information warfare etc. Further, their strategy is reflective of the lessons learnt by PLA during the three years long standoff with India in addition to the Taiwan Strait crisis of August 2022. With the commencement of Xi's third tenure as CPC's General Secretary since October 2022, his speeches denote a further revision in PRC's national defence strategy, corresponding to the organisational reforms and upgrades. Apropos, India's national security strategy needs revision combined with nationwide circulation to inform all Indians and adversaries about India's core interest, encompassing both political cum military intent.
- **Civil Military Fusion (CMF)** The 14th FYP repeatedly emphasises the need for CMF to ensure dual-purpose development through coordinated development in the fields of aerospace, AI, cyberspace, biology, ocean, new energy quantum technology, etc. It focusses on the promotion of an organic combination of the military construction layout with regional economic development, befitting the path of national security development. The plan also pushes for acceleration of the construction of an up-to-date military logistics system and asset management system. It also promotes the strengthening of joint training

of local and military personnel to advance the current qualification certification and for improved use and exchange of local and military personnel.³² Xi wants to ensure that any positive civilian development must facilitate corresponding enhancement of PLA's strength. India can draw lessons from this Chinese CMF strategy to ensure close integration, unity, and synergy amongst various stakeholders. Various groupings such as Government-Military-Defence, Public Sector Units-Private Industry, Civil Academia-Media can work within the groupings and across it to cater to the most suitable/ best combination of arriving at some level of civil-military fusion. The primary goal here should be to narrow the widening gap in military capabilities.

- **Organisational Reforms** Xi's October 2022 speech clearly indicates that PLA's ongoing military reforms, since 2015, have not ended. Lessons from every standoff and war are being incorporated. The Eastern Ladakh standoff since 2020, particularly the Galwan incident, forced PLA to hasten the mechanisation and creation of combined arms battalions with corresponding induction of latest equipment. The latest Yangtse incident has made them have a relook at deployment of drones and aircrafts in Western Theatre Command.³³ However, PLA's Xinjiang Military Region established unique structures of Combined Arms Divisions and Combined Arms Regiments retaining the Corps-Division-Regiment-Battalion hierarchy at variance with the structures and Corps-Brigade-Battalion hierarchy followed by balance PLA. Furthermore, Xi is focussing on PLA's human resource optimisation and training through modernisation of military training institutes.³⁴ Though Indian Army has indicated plans for IBGisation, the Indian defence forces need to enhance true integration and speed up their plans for theaterisation.
- **Non-Contact Domain** The 14th FYP and Xi's October 2022 speech have both emphasised on PRC's need to enhance Integrated Strategic Deterrence with significant emphasis on new-domain non-contact forces with force multiplier combat capabilities. China has adopted 'Whole-of-Nation' approach, with maximum cross-organisation synergy amongst the academia-military-government-police-SOEs-private industries-militia to daily fight and aggressively dominate the following domains in CPC's favour.³⁵
 - **Cyber** The Chinese attacks on Indian critical information infrastructure continue unabated targeting Internet Service Providers, power grids, aerospace, and defence firms. The recent AIIMS cyber-attack clearly highlights the urgent need for India to adopt a 'Whole-of-Nation' approach for strengthened cyber

resilience. However, it is only a 'Cyber Balakot', offensive counter-strike in cyber domain, that will deter adversaries from repeatedly targeting our critical assets.

- Information Warfare and Propaganda PRC has multitude of tools, being further expanded under 14th FYP, to execute information operations to gain information dominance. Xi, during his 20th Congress Party report, reiterated the need to raise average Chinese awareness about the importance of national defence. CPC has tried to spread positive propaganda for integration of ethnic minorities particularly Tibetans in PLA including in militia forces. Indian government, both private and public media and the defence forces together need to stitch a common narrative to enhance both our soft power based 'Vasudhaiva Kutumbakam' approach, thus fostering a nationalistic fervour of 'One India.'
- Space Infrastructure While PLA's SSF strengthens its array of counter-space weapons like missiles, lasers and space-based robots, Indian defence forces also need a space-oriented force catering for the protection as well as assured availability of space-based support in times of war or crisis-like situations.
- Electromagnetic Spectrum As PLA looks at electromagnetic dominance as a pre-requisite for combat operations as specified in its SMS 2020, Indian defence forces need to strengthen its Electromagnetic Resilience.
- **Model Villages and Border Infrastructure** China's aim of construction of 628 'Xiakong', moderately prosperous or model well-off villages along Indian border, close to the LAC, opposite to Uttarakhand, Arunachal Pradesh and Sikkim is near completion. It is likely that under the strategy of civil-military fusion, PLA will exploit these villages for military build-up. Additionally, reports have noted multiple Chinese build-ups in Pangda, Chumbi valley, Churup area –11 kms from LAC, 35-36 dwellings in Qangze – 52 kms from LAC. The Chinese have also set up a ropeway near the Torsa-Nala nearby the tri-junction of the Indian-Bhutan-Chinese border.^{36,37}



Source: [Aneesh Jaganath, Takshashila Institution](#)

For the upgradation of PLA's logistics capabilities and facilitation of much rapid movement of weaponry, equipment and troops, a majority of military or dual-use projects consisting of construction and upgradation of dozens of airports and heliports is being taken up.³⁸

India too has announced Vibrant Villages Programme (VVP) during the Finance Minister's Nirmala Sitharaman's Union Budget 2022-2023 speech besides the implementation of Border Area Development Programme (BADP) in 2018. The BADP is implemented in the range of up to 10 kms from the first habitation at the international borders, covering 460 border blocks of the 117 border districts in sixteen states and two Union Territories. The Vibrant Villages Programme is directed towards construction of enhanced infrastructure along Sino-Indian bordering states of Arunachal Pradesh, Uttarakhand, and Himachal Pradesh. The budgetary allocation to the Border Management has seen a 42% jump from ₹1,921.39 crores to ₹2,517.02 crores.^{39,40}

Thus, the lesson presented for India here is two-fold – first, the need for infrastructural development along our border villages which is being addressed and second, prioritisation of maintaining surveillance and keeping track of suspicious developmental activities in the Chinese Xiakong villages.

- **Equipment** Under the 14th FYP, Chinese military intends to induct latest equipment while de-inducting its second and third generation equipment. It is likely to focus on construction and induction of the fourth aircraft carrier along with latest destroyers and carrier-based

aircrafts to form minimum three Carrier Battle Groups with preparations for fourth too; enhance its fleet of amphibious ships; induct unmanned underwater and surface vehicles. PLAAF too will seek to increase the quantum of J20 aircrafts from the existing 200 to about 350 plus; enhance the number of unmanned aircrafts in Manned-Unmanned teams as loyal wingmen; and induct H-6N nuclear capable air-to-air refuellable bomber. PLAGF is likely to induct larger quantities of MLRS PCL191 capable of firing SRBMs too up to 450-500 km range; strengthen the Air Defence particularly anti-drone cover to the ground forces; induct variety of loitering munitions; replace the T-88 and T-59 tanks with T96B tanks and 130 mm / 152 mm guns with the latest PCL181 guns. PLARF is looking to maximise induction of hypersonic missiles and expand ICBM silo fields.^{41,42} Apropos, Indian defence industry needs to pace up indigenised production of essential military platforms to strengthen its forces deployed at the border.

- **Talent and Military Fighting Spirit** Xi's instructions are clear to "bring together the best and the brightest from all fields...and redouble efforts to foster military's fighting spirit."⁴³ Xi, through a series of standoffs with various militaries since 2022, is clear that PLA neither has the desired talent to operate the modern equipment nor do his soldiers have the required fighting spirit expected out of a soldier. Having realised the negative impact of one-child policy resulting in chocolate soldiers as most recently seen in Yangtze incident on 09 December 2022, Chinese military policy reforms aim to induct, harness, and retain world's best talent to exploit technology and overcome deficiency in military qualities valour and courage. Indian defence forces need to refine their own human resources' management policies to identify, acquire, induct, harness, and retain best Indian talent. The courage and valour need to be adequately matched with technological threshold and domain specialisation.
- **Over-Emphasis on Party Loyalty** With a permanent focus on ensuring CPC's survival and justifying 'Mandate of Heaven', the CMC's priority is on enhancing political loyalty first and then only professional competence. Hence, it is a major weakness wherein Party comes first, Nation second, and the populace last always and every time. In a 'Red vs Expert' battle for eminence, Red will always be given priority in promotion in CPC's military. In fact, CMC Chairman Xi goes on to elaborate in his 20th Party Congress report that the CPC "will continue to arm our military service members with the Party's new theories"⁴⁴. The Party's control over PLA is so deep that even the military theories are being decided by Party hierarchy. Thus, the PLA's commanders at all levels, because of the over-emphasis on Loyalty, will always look backwards to their political bosses for decisions and are very likely to

fail when time critical decisions are to be taken which could be the turning point in any swift battle or untoward situation. A major lesson for Indian defence forces is to exploit this weakness.

Conclusion

The 'People's Republic of China's 14th Five-Year Plan (FYP) for National Economic and Social Development and Long-Range Objectives for 2035' holds immense significance for actualisation of 'Revolution in Military Affairs (RMA) with Chinese Characteristics'. In the pursuit of re-embarking onto the Chinese dream of the Golden Era, Xi has noted that new military revolution and the modernisation of the defence forces has presented a rare historical opportunity. Thus, through a comprehensive study of the Chinese 14th FYP, one starts to arrive at the immense implications that the plan holds for India. While key takeaway remains the modernisation of the PLA, the central focus on civil-military fusion and accomplishment of a digitised economy too requires special attention.

The Chinese have become adept at initiating and managing standoffs. To divert attention from internal problems like Zero-COVID policy, CPC has been initiating nationalist fervour by triggering standoffs in its borders, such as Taiwan strait crisis 2022, incidents on East China Sea with Japan and the fist fights of Galwan and Yangtse with India to name a few. The major aim of these standoffs has been to employ the salami slicing approach for slightly altering the status quo regularly, even if by an inch, to set a new normal in the Chinese favour. The various sub-elements of CMF enabled 14th FYP have aimed to strengthen PLA during such standoffs and extend their reach to these disputed areas. While the CPC shows aim of construction of dual-purpose airports in Tibet and Xinjiang to promote tourism, the implicit motive is to overcome the limitations of PLA's operational capabilities in high altitude areas against India. Similarly, the 14th FYP's objective for becoming a transportation powerhouse coupled with Xiakong villages strives to enable PLA's reach in all remote disputed areas along the Indian border, functioning as a suitable administrative base available nearby.

Through a thorough study of the 14th FYP, many lessons for Indian government and military. However, upon ignorance of these lessons, it is likely that India may play into the Chinese trap one more time. Thus, downplaying these vitals lessons along with delay in well-planned time appropriate actions may prove harmful in the years to come. Also, the Chinese desire to match and finally defeat the US capabilities in three timelines of 2027, 2035 and 2049 will only widen the CNP gap particularly in the domains of military and technology. India thus needs to think out of the box to out manoeuvre China even by skipping few odd steps in

between. Consequently, the Indian military needs to take organisational and doctrinal reforms on their own which do not require any budget allocation or additional manpower and should not be found wanting on this account. To conclude, our defence forces need the best talent, best technology and whole of nation support to secure the territorial integrity of our nation.

CERTIFICATE

The paper is author's individual scholastic articulation. The author certifies that the article is original in content, unpublished and it has not been submitted for publication/ web upload elsewhere and that the facts and figures quoted are duly referenced, as needed and are believed to be correct.

Disclaimer: Views expressed are of the author and do not necessarily reflect the views of CENJOWS.

Endnotes

¹ Jiang Tiejun Song Bo, "Advance with the times to promote change (与时俱进促变革)." China Military Network, June 8, 2021. Accessed 5 July 2022. http://www.81.cn/jfjbmap/content/2021-06/08/content_291222.htm.

² Xi Jinping, "Hold High the Great Banner of Socialism with Chinese Characteristics and Strive in Unity to Build a Modern Socialist Country in All Respects." Report to the 20th National Congress of the Communist Party of China, October 16, 2022, translated into English by China Aerospace Studies Institute (CASI). Accessed November 15, 2022.

³ Ibid.

⁴ Ibid.

⁵ "Outline of the 14th Five-Year Plan for National Economic and Social Development of the People's Republic of China and the Long-Range Objectives for 2035", Chinese State Council and Xinhua News Agency, March 12, 2021. Accessed July 8, 2022. http://www.gov.cn/xinwen/2021-03/13/content_5592681.htm.

⁶ "Questioning anti-corruption campaign in China's chip industry is deliberately muddying the waters." Global Times editorial, July 31, 2022. Accessed August 8, 2022. <https://www.globaltimes.cn/page/202207/1271858.shtml>.

⁷ "my country will set up a near-Earth asteroid defence system to contribute to the protection of the earth and human security." Guancha.cn, April 24, 2022. Accessed August 12, 2022. https://www.guancha.cn/industry-science/2022_04_24_636536.shtml.

⁸ Nikkei Asia, "The resilience myth: fatal flaws in the push to secure chip supply chains", August 5, 2022. Accessed August 15, 2022. <https://www.ft.com/content/f76534bf-b501-4cbf-9a46-80be9feb670c>.

⁹ "14th Five-Year Digital Economy Development Plan." The State Council, State Development [2021] No.29, January 12, 2022. Accessed on November 8, 2022. http://www.gov.cn/zhengce/content/2022-01/12/content_5667817.htm.

¹⁰ "Wang Jianwei of the Ministry of Industry and Information Technology: Solidly promote the high-quality development of my country's digital economy." Department of Digitalization, May 5, 2022. Accessed November 9, 2022. https://jxt.zj.gov.cn/art/2022/5/20/art_1657982_58928593.html.

¹¹ Xi Jinping, 'Hold High the Great Banner of Socialism with Chinese Characteristics and Strive in Unity to Build a Modern Socialist Country in All Respects'.

¹² Ibid.

¹³ "Learning Jinping New Era Socialism Thought Research Centre with Chinese Characteristics, 'Hold high the ideological banner of a strong army, build a world-class army (高举强军思想旗帜建设世界一流军队)." National Defence University, August 3, 2020. Accessed August 1, 2022. <http://theory.people.com.cn/n1/2020/0803/c40531-31807364.html>.

¹⁴ Ibid.

¹⁵ "The Fourteenth Five-Year Plan for the National Economic and Social Development of the People's Republic of China and Outline of Long-term Goals for 2035." Xinhua News Agency, March 13, 2021. Accessed December 15, 2022. http://www.gov.cn/xinwen/2021-03/13/content_5592681.htm.

¹⁶ "Learning Jinping New Era Socialism Thought Research Centre with Chinese Characteristics, 'Hold high the ideological banner of a strong army, build a world-class army" National Defence University.

¹⁷ Ibid.

¹⁸ PRC's National Key Discipline Theory Works of National Defence University, 'The Science of Military Strategy (Revised in 2020)', translated in to English by USA's China Aerospace Studies Institute, January 2022.

¹⁹ Ibid.

²⁰ Yoichi Funabashi, "To counter China's reactive assertiveness, 'quiet deterrence' is called for." The Japan Times, Commentary, October 3, 2022. Accessed December 15, 2022. <https://www.japantimes.co.jp/opinion/2022/10/03/commentary/world-commentary/china-taiwan-moves/>.

²¹ "China's Space Program Through The Lens of Irregular Warfare Theory." China Aerospace Studies Institute, August 8, 2022. Accessed on October 24, 2022. <https://www.airuniversity.af.edu/CASI/Display/Article/3093904/chinas-space-program-through-the-lens-of-irregular-warfare-theory/>.

²² Molly Silk, "China Is Evolving a Distinct Space Culture." Thediplomat.com, March 26, 2021. Accessed August 8, 2022. <https://thediplomat.com/2021/03/china-is-evolving-a-distinct-space-culture/>.

²³ "The "Ten Rules for Aerospace" is released in Beijing, and enterprises can receive up to 20 million yuan in financial support each year", Sina.com, April 10, 2022. Accessed August 18, 2022. <https://finance.sina.com.cn/china/dfjj/2022-04-10/doc-imcwiwst0974435.shtml>.

²⁴ "How India and China compare in space capabilities, veteran aerospace expert shares analysis." Wion News, June 17, 2022. Accessed August 18, 2022. <https://www.wionews.com/science/how-india-and-china-compare-in-space-capabilities-veteran-aerospace-expert-shares-analysis-489127>.

²⁵ Dr. Maj Gen (Retd) Anil Kumar Lal, "Space power security matrix for India: Part 1." Times of India, June 15, 2022. Accessed November 6, 2022. <https://timesofindia.indiatimes.com/blogs/rakshakindia/space-power-security-matrix-for-india-part-1/>.

²⁶ Pranav R Satyanath, "India's Defence Space Agency: The Way Forward." Takshashila Institution. Accessed September, 2022. <https://takshashila.org.in/blogs/indias-defence-space-agency-the-way-forward>.

²⁷ Molly Silk, "China Is Evolving a Distinct Space Culture." Thediplomat.com, March 26, 2021.

²⁸ Tim Studt, "2022 Global Funding Forecast: R&D Variants cover more than the pandemic." R&D World, April 12, 2022. Accessed September 8, 2022. <https://www.rdworldonline.com/2022-global-funding-forecast-rd-variants-cover-more-than-the-pandemic/>.

²⁹ "Eye on China, govt plans a 1,700 km 'frontier highway'." The Times of India, December 19, 2022. Accessed December 19, 2022. <https://timesofindia.indiatimes.com/india/eye-on-china-govt-plans-a-1700-km-frontier-highway/articleshow/96326206.cms>.

³⁰ Suyash Desai, "Infrastructure Development in Tibet and its Implications for India." Jamestown China Brief Volume 21, Issue 22, November 19, 2021. Accessed December 22, 2022. <https://jamestown.org/program/infrastructure-development-in-tibet-and-its-implications-for-india/>.

³¹ US Department of Defence, 'Military and Security Developments Involving the People's Republic of China – 2022'.

³² "The Fourteenth Five-Year Plan for the National Economic and Social Development of the People's Republic of China and Outline of Long-term Goals for 2035." Xinhua News Agency.

³³ “China War-Gamed Arunachal with Drones, Jets after Tawang Clash.” NDTV, December 19, 2022. Accessed December 19, 2022. <https://www.ndtv.com/india-news/exclusive-china-war-gamed-arunachal-pradesh-with-drones-jets-after-tawang-clash-3619284>.

³⁴ Anshuman Narang, ‘PLA’s Tactical Transformation with Chinese Characteristics’, GB Books, ISBN-10-9383930896.

³⁵ US Department of Defence, ‘Military and Security Developments Involving the People’s Republic of China – 2022’.

³⁶ “China is expanding model villages in strategic areas: sources.” The Hindu, December 17, 2022. Accessed December 18, 2022. <https://www.thehindu.com/news/national/china-expanding-model-villages-along-lac-including-new-villages-facing-strategic-siliguri-corridor/article66270385.ece>.

³⁷ “China builds ropeway, roads near tri-junction.” The Hindu, December 16, 2022. Accessed December 18, 2022. <https://www.thehindu.com/news/national/china-builds-ropeway-near-tri-junction-with-india-bhutan-as-part-of-infra-strengthening-in-eastern-sector/article66266807.ece>.

³⁸ “How is China Expanding its Infrastructure to Project Power Along its Western Borders?” China Power, March 16, 2022. Accessed December 23, 2022. <https://chinapower.csis.org/china-tibet-xinjiang-border-india-military-airport-heliport/>.

³⁹ “Union Budget 2022-2023: New Vibrant Villages Programme; A Major Boost to Infrastructure Development of Northern Border Villages.” Presented by Press Information Bureau and Ministry of Rural Development, February 24, 2022. Accessed on November 8, 2022. <https://static.pib.gov.in/WriteReadData/specificdocs/documents/2022/feb/doc202222418801.pdf>.

⁴⁰ “Vibrant Villages Programme.” Press Information Bureau and Ministry of Home Affairs, March 29, 2022. Accessed November 8, 2022. <https://pib.gov.in/PressReleasePage.aspx?PRID=1811258>.

⁴¹ US Department of Defence, ‘Military and Security Developments Involving the People’s Republic of China – 2022’.

⁴² Anshuman Narang, ‘PLA’s Tactical Transformation with Chinese Characteristics’.

⁴³ Xi Jinping, ‘Hold High the Great Banner of Socialism with Chinese Characteristics and Strive in Unity to Build a Modern Socialist Country in All Respects’.

⁴⁴ Ibid.