

# AIR POWER

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CENTRE FOR AIR POWER STUDIES, NEW DELHI



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## **CENTRE FOR AIR POWER STUDIES**

### **VISION**

To be an independent **centre of excellence on national security** contributing informed and considered research and analyses on relevant issues.

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To encourage independent and informed research and analyses on issues of relevance to national security and to create a pool of domain experts to provide considered inputs to decision-makers. Also, to foster informed public debate and opinion on relevant issues and to engage with other think-tanks and stakeholders within India and abroad to provide an Indian perspective.

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## ➤ EDITOR'S NOTE

Nothing dominated the year 2020 more than the impact of COVID-19 on the planet where, except eleven countries—of which nine were from the South Pacific group—the rest of the world came under the severe grip of the virus, with some countries also registering a second and a third wave. By the end of the year more than 1.7 million people had died worldwide. Although this figure of people losing their lives is not as startling as the number that died in earlier pandemics like the Spanish Flu in 1918-20 when more than 100 million died worldwide, or the bubonic plague of AD 541-542 that killed almost 10 per cent of the world's population, the impact of the present pandemic on world economies has been disastrous. Social media went viral with images of hospitals in advanced countries getting overwhelmed with people—mostly the elderly—lying in corridors with no one to care for them as health-care workers themselves fell victim to the virus. This created a fear psychosis amongst all about the debilitating effect of the virus. Now, amidst the scare of a second (and a third) wave in some of the Western nations, there appears to be some respite with the news of early approvals for the various vaccines to fight the virus.

Has China been silent after labelling itself as the 'epicentre' for the spread of the deadly 'Wuhan virus'? Far from it. It has used its mouthpiece—*Global Times*—to argue that although the West banned flights from China once news about the novel corona virus originating in Wuhan spread worldwide, they did not ban incoming flights from other nations. Therefore, if there was any tourist who had travelled from China to a destination in Europe and onwards to the US, he could easily carry the virus to the US since flights from Europe to the US had not been banned. By this the *Global Times* was defending China's position as being solely responsible for the

spread of the virus. The *Global Times* has also been used by China recently to vilify other nations with conspiracy theories of 'exporting' the virus to China when it claimed that traces of COVID-19 were found on cold-chain imports (of fish, beef, cuttlefish, etc.) from different countries, including India, Australia, Brazil, Russia, and some countries from Europe. When China included New Zealand to the list, the New Zealand Prime Minister reacted strongly as her country is known to have contained the spread of COVID-19 admirably well. The actions taken by the customs department of China in declaring transshipments to be COVID-19 positive were thus seen to be highly suspicious as the result of the findings of the Chinese Customs Department, was never shared with the exporting country, particularly after the WHO clarified that there is no evidence of transmission of coronavirus from food or food packaging. This resulted in a huge uproar at the WTO for 'unfair trade restrictions' being placed by China on certain countries. Was this any skin off China's back? Not in the least!

The stand-off between India and China along the LAC, particularly in the Ladakh sector, continued till the closing stages of the year. PLA troops dug in for the harsh winter and tested out the logistics support provided by the Western Theatre Command. Reports of building metalled roads where earlier only 'kutchra' tracks had existed were also some indications of the Chinese intent of staying entrenched for the long haul. This was to be expected, as China cannot be seen to be 'weak kneed' against a 'less powerful' India; domestic audiences in China would just not stand for this, particularly at a time when the CPC completes one hundred years next year since its inception in 1921. On December 26, 2020, the Standing Committee of the 13th National People's Congress approved a revised National Defence Law, which will come into effect from January 1, 2021. What this law proposes is to seek greater participation of its strengthened military in safeguarding its territorial, economic, and sovereign interests. Put simply, although China proclaims to the world that it does not seek any other nation's territory, it will do its utmost to defend its sovereignty; in other words, reclaim lands that it 'believes' rightfully once 'belonged' to China(?). It may be recalled

that during the Shimla Convention in February 1914, while showing the territorial limits of Tibet—a sovereign nation at the time—Lt Col Sir Arthur Henry McMahon displayed a map in which the ‘historic frontiers’ of Tibet were shown for acceptance. These ‘frontiers’ along the borders with India later came to be known as the McMahon Line. There was no disagreement by the Chinese representative present at the Convention. However, China repudiated the initialling of the document by its plenipotentiary at the convention, claiming that the McMahon Line was included in the document without his prior knowledge. It is ‘historically’ a fact that from the time of the Shimla Convention of 1914 till January 23, 1959, the Chinese government has never officially, in any document, ever challenged the McMahon Line. The late Ambassador RS Kalha had surmised that even International Law is quite clear on the subject:

If a state acquires knowledge of an act which it considers internationally illegal, and in violation, and nevertheless does not protest; this attitude implies a renunciation of such rights, provided that a protest would have been necessary to preserve a claim.

From a legal point of view, too, Tibet remains an independent state under illegal occupation; a fact that China wishes it could somehow remove from the pages of History.

All this, however, is water under the bridge now; the fact remains that China is firmly entrenched in Tibet after carrying out Tibet’s ‘peaceful liberation’ from the Guomindang (KMT) reactionary government forces in 1951. Coming back to the current stand-off in Ladakh. After the PLA had carried out pre-emptive actions to ‘intrude’ into strategically important Indian areas like Depsang, Galwan, Hot Springs-Gogra-Kugrang and north bank of Pangong Tso in May 2020, the ‘tactical’ actions by the Special Frontier Force, along with troops of the Indian Army, to occupy the high peaks in the Kailash Range opposite the Chushul Bowl proved to be of ‘strategic’ import as events unfolded on the morning of August 30. The Chinese were shocked. India now held the dominating peaks South of the Pangong Tso and had a clear look at the Spanggur Gap.

Of course, despite this tactical victory, it would be important for India to consolidate its positions and not allow any over-confidence to set in; we should remain vigilant for a Chinese riposte that is likely to come. To overcome this 'setback'—a humiliation if you may call it—the Chinese response is likely to be with overwhelming force to capture these strategically important positions in the Kailash Range. This would, of course, not be possible with a Galwan type of operation—something the Chinese tried and were beaten back on September 7-8 at Mukhpari. Any attempt to use greater force could, of course, lead to war. Use of unconventional techniques by China—including non-lethal means—should not be ruled out, as Grey Zone warfare is the Chinese preferred style of warfare.

Our military leadership would be well advised to assume that the lessons of the recent conflict in the Caucasus have certainly not been lost on the PLA as these offer the least risk to aircrew. It should be assumed that the PLA would be tempted to employ similar tactics, albeit with greater weight of attack. Defensive measures against such attacks need consideration urgently.

The geostrategic advantage that India enjoys in the Indian Ocean region needs to be 'advertised' continuously through seminars and writings at regular intervals. Actions to further strengthen the 'unsinkable aircraft carriers' in the Bay of Bengal (the Andaman and Nicobar Islands) and in the Arabian Sea (Lakshadweep group of islands) with appropriate weapons would send a strong message to those whose actions and designs in the IOR are inimical to India's national interests. The IAF, along with the maritime reconnaissance assets of the Indian Navy, would be the linchpin in creating the necessary deterrence in the IOR, including around the choke points in the Straits, both to the East as well as to the West of India.

With the impetus being given to the Make in India initiative—particularly in the defence sector—towards the PM's vision of *Atma Nirbharta* in *Raksha Utpadan*, a turnover of US\$ 25 billion (including export worth US\$ 5 billion) is expected to be achieved in the aerospace and defence sector by 2025. Significant efforts of the DRDO towards enhancing defence preparedness, for example, SMART (Supersonic Missile Assisted Release of Torpedo) anti-

sub missile, SHAURYA hypersonic missile, Brahmos II hypersonic cruise missile, AURA autonomous UCAV, high power microwaves (HPM) and High Energy Lasers need to be pursued with greater gusto to ensure their early entry into service for use by the armed forces. The early commissioning of the defence industrial corridors would greatly assist in realising the *Atma Nirbharta* in *Raksha Utpadan* aims set by the PM.

Let us look towards 2021 with optimism.

My best wishes to all readers for a safe, healthy, and prosperous New Year.

Happy reading

A handwritten signature in black ink, appearing to be 'J. S. D.' with a small flourish at the end.



# CHALLENGES OF CHANGING GEOPOLITICS: INDIA'S OPTIONS

**RKS BHADAURIA**

Air Mshl KK Nohwar DG CAPS, former Chiefs, distinguished panelists, and participants from Armed Forces and Civil Services, ladies and gentlemen. A very good morning to you all. As part of the annual Subroto Mukherjee Seminar, in honour of IAF's first Indian Chief of Air Staff (CAS), it is indeed a privilege for me to deliver the Inaugural Address and share my thoughts on a topic that is very contemporary with you all. Forging discussions like these with eminent thinkers from various disciplines allows us to brainstorm and find solutions to further India's national interests in the constantly mutating regional and global environment.

As you all have witnessed, there has been a paradigm change in the geopolitical landscape across the world especially in the last three-four years. We are witnessing shifts in geopolitical tectonics like never before with regional and global powers jostling for larger influence in the emerging world order and increasingly for regional domination and increasingly in our neighbourhood. The challenges and threats that were earlier perceived or assessed and most often dismissed are now making themselves clearly discernible. Being central to the sub-continent, India has high stakes in

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Air Chief Marshal **RKS Bhadauria**, PVSM AVSM VM ADC is Chief of Air Staff. The address was delivered by him at the 17th Subroto Mukerjee Webinar organised by Centre for Air Power Studies, New Delhi, on December 17, 2020.

ensuring stability in the regional landscape as well as rightfully gaining its place in the new world order.

The current pandemic has further exacerbated existing inequalities amongst nations, and has undoubtedly been the biggest geopolitical event of the century this far, due to the social, economic and health impacts it has had. Events like these have the potential to change the global order. To quote Lenin "There are decades where nothing happens and there are weeks where decades happen". I think we all have witnessed the second half of this prophetic quote.

Today, in the emerging global order, interstate relations have become increasingly transactional and perhaps entirely an outcome of interests. It is quite clear that contest and conflict will increasingly characterise the scheme of things, something which is very relevant and visible in our neighbourhood. The world is witnessing a turn of events where we find a rule-based international order challenged by a complex interplay of global forces. It is clear that a policy of contestation is being preferred over traditional tenets of cooperation and collaboration by some countries which has a direct bearing on our security scenario. The coming decade will undoubtedly see these trends increase, and it is against this backdrop of a changing geopolitical setting in which "while diplomacy must remain the primary driver, military capability and the will to give an unexpected and disruptive response will be the prime deterrent".

Nation-states, who have succeeded in attaining a great power status, did so by achieving dominance over the creation and employment of military power. Military power in that sense is one of the most important components of Comprehensive National Power since it is essential for ensuring deterrence and providing the instruments to a nation for securing its interests. Therefore, if we—as a nation—aspire for peaceful growth and contribute to regional stability, in view of the clear and present security challenges that are manifesting along our borders we have to continue to enhance our military power intelligently and carefully—because of the budget constraints.

Currently there are two major geopolitical developments which are altering the strategic assessments world over. The first being the “growing demonstration of China’s power ” and the second being the “uncertainty of familiar commitment to global security by the US” due to its ‘America First’ policy.

The responses to these twin trends—a more assertive China and a more uncertain US, has been varied among the US allies as well as the countries which have traditionally leaned towards US for politico-military support. With US being firm on reducing its military footprint, the Chinese are aggressively stepping in the strategic spaces that are being vacated by the US and, of course, Pakistan has jumped ships to take advantage of this shifting scenario and remain relevant in Afghanistan.

In the last one month itself there have been two major events which are going to have a huge impact on India’s security policy. The first being the change of guard in the US and the other being US brokered normalisation of ties between Israel and the Arab World. Would the US President elect maintain the policy of a tough stand, or would the US go soft in its approach is what we need to wait and watch. I personally feel that with broad consensus amongst the Americans of the aggressive nature of the approach, the President elect would in all probability retain the current firm policy in dealing with China.

The historic Israel-UAE agreement has paved the way for a complete realignment of the Middle East. Normalisation of relations between the two countries, with whom we have strategic partnerships, would definitely buttress India’s ties further in the region. However, this also provides an excuse for traditional rivals of Israel like Turkey, Iran and Pakistan to strengthen their geopolitical and military alliance further which may have security connotations for India and this is going to be an increasing trend of Turkish technology and equipment being available to Pakistan in particular.

In any case, I strongly feel that ‘one has to fight his own battle’, something that I have shared in earlier forums. The stiff and swift Indian response at Galwan has shown to the other affected countries which were looking up to the global powers to come to their assistance on territorial disputes, that

while you may get moral and diplomatic support, you have to fight on your own. Hence there is a requirement to maintain and sustain own organic capability to fight our wars; we cannot rely on foreign assistance in direct conflict.

Our proactive actions and strong posture was instrumental in dissuading the adversary from making any further attempts to alter the status quo and we remain hopeful that peace and stability will be restored along the LAC through the ongoing dialogue.

On our West, with the International Security Assistance Force (ISAF) withdrawing from Afghanistan, Pakistan would be keen in getting control in Afghanistan through Taliban. Hence, the Indian armed forces need to stay proactive and alert against increased attempts along the LoC. A state of No War No Peace (NWNP) and emerging threats from adversaries as well as non-state actors shall continue in the foreseeable future.

Towards our south, the increased presence of extra-regional forces in the Indian Ocean Region (IOR), Indo-Pacific and close to our island territories poses a challenge. As part of the Belt and Road Initiative, a huge network of military and commercial facilities is being created. The debt-trap diplomacy to achieve geopolitical goals by ensnaring recipient countries with loans which cannot be repaid has been a subject of debate for long. However, this has allowed foreign created and controlled ports and facilities perilously close to our mainland and island territories.

We must also take into account the emergence of new domains of cyber and space which transcend all aspects of the security paradigm and are massive potential disruptors. While some of these are state controlled, a large majority is ungoverned and in the hands of non-state actors. Most nations are unprepared and vulnerable despite best efforts. Cyber is already the biggest disruptor as it causes disproportionate damage across domains. This instrument is being used by forces inimical to India to malign and damage our reputation globally. Our adversaries are investing a huge amount of effort through cyber warfare and disinformation campaigns to constrain India into a regional power and hold it from playing a larger, more comprehensive global role.

The recent years have seen a transformation in the security paradigm. Our definition of national boundaries has shifted well beyond the classical definitions of land borders, shorelines, etc. We cannot remain chained to our old concepts of fronts—one front and two front wars. The nature and scope of warfare has expanded both in physical and temporal terms. The days of classical static force-on-force conflict, preceded by a clear warning period are over.

In order to address such geopolitical challenges, we have to be ready to swiftly identify a threat, and swiftly respond to counter it appropriately. The immediate aim should be to gain instant asymmetric advantage. Attainment of strategic advantage should be simultaneously pursued. Any force structure in this regard therefore has to be agile, flexible and hard-hitting in order to be effective and be able to respond at short notice.

As India moves ahead in these unpredictable times and navigates its way through the shifting plates of global politics, fundamentals that guide its engagement with rest of the world are undergoing a considerable change. A re-calibration of our national security policies has prompted this change and is based on a clear understanding of a need to secure our national interests through a firm bold strategy in matters of national security.

So what are the options for India? What should be our approach to these changing dynamics? I would primarily identify the important aspects as:

- Growing and aggressive participation by India with all the like-minded partners as a security provider particularly in our region.
- We have to be adequately capable to fight our battles—therefore, build comprehensive national power in which the military capability pillar needs to be focused upon by the defence services.
- Realise the growing importance and inevitability of air power providing the swiftest offensive and conventional deterrent capabilities and IAF needs to build this in our plans.
- Build our capability on indigenous systems because in the emerging scenarios—and in the long run—you can never win if you import your substantial capability.

I will touch upon important aspects of these thoughts.

Engagement with partners in this vast geographic expanse to counter hegemonies is important. Towards this, bilateral and multilateral partnerships are steps in right direction. As part of military diplomacy, the Indian Armed Forces have been shouldering their responsibilities of strengthening bilateral partnerships for peace and security through multiple means with the rim countries of IOR as well as countries in the Indo-Pacific. The IAF has been actively engaged with countries like Singapore, Indonesia, Malaysia, Thailand, Sri Lanka and Australia through joint exercises and goodwill visits furthering goodwill between the nations.

Mutual Logistics Support Agreement (MLSA) has been a historic cooperation agreement between India and Australia which allows reciprocal access to military logistics facilities allowing improved interoperability between the security forces of the two nations. Similar Government-to-Government (G2G) agreements and Quid Pro Quo arrangements between India and rim countries of IOR and Indo-Pacific will help in deepening relationships based on trust and mutual respect and also for countervailing forces detrimental to Indian national security.

Air power is playing a pivotal role in these endeavours since it is best placed to handle dynamic requirements that emanate from ever-present traditional as well as non-traditional security challenges in our region. The inherent flexibility of air power allows prompt response options within often narrow time-frames. The freedom of manoeuvre provided by air and space capabilities enables us to exert influence in a sustainable and easily scalable manner, while minimising collateral damage on the ground.

Our Honourable Prime Minister during his historic keynote address at Shangri La Dialogue-2018 had articulated the key role of India's Armed Forces in building partnerships in the Indo-Pacific region for peace and security, as well as humanitarian assistance and disaster relief. As a critical tool of national policy, air power plays a key role in not only ensuring regional stability but also enhancing mutual cooperation. Air power, by its nature being offensive

and punitive arm of war fighting, adds element of deterrence in the entire gamut of war fighting. When there is credible deterrence, then nations tend to be responsible in their approach towards neighbours and there is general sense of stability and mutual coexistence. In the current multipolar world, it is very difficult for one nation to assume and claim the role of a regional security provider especially if the area of interest is vast. IAF has the capacity and the capability to respond to any situation in our area of interest.

While we aim to work towards the mutual good of the region, it is important to highlight the overarching offensive capabilities that IAF brings to the table today. IAF has rapidly evolved its air-to-air refuelling (AAR) capability and seamlessly integrated the same in its operational matrix where our reach has extended tremendously. Our expertise in undertaking complex long range operational missions by day and night across diverse fighter platforms is unmatched in this region. As we rapidly integrate new long range stand-off weapons with pinpoint accuracy, IAF can easily undertake precise targeting missions at long distances over targets 3000 km away from our mainland and most of the Indian Ocean Region.

We need to reorient our capability requirements of the near future and we have done that. Advanced Medium Combat Aircraft (AMCA) will be a 5th generation aircraft in terms of platform with a host of 6th generation technologies in sensors, directed energy weapons, networking, AI and ability to handle the sensor to shooter loop including control of UCAVs. We are also envisioning Manned-Unmanned Teaming MUM-T concept involving teaming of manned aircraft with UCAVs in a highly networked air battle scenario. We have inducted smart weapon, and are actively pursuing niche technologies in the field of space based capabilities, Data Link, AI, big data handling, swarm drones and stealth UCAVs.

The knowledge that we are able to kinetically deliver a weapon or a relief pallet swiftly and surely, is a source of concern to our adversaries, and one of comfort to our friends. We will continue to maintain our capabilities and training to remain able to deliver precise and calibrated effect throughout our Area of Responsibility, and touch anywhere in our extended neighbourhood.

This ability, to instantly deliver either a swift blow, or instant assistance, is what will temper adversary's ambition on the one hand, and build trust with our friends on the other.

Like the other big powers, for India to assume a bigger role in the global security apparatus, we need to ride on the pillars of indigenisation and manufacturing. As envisioned by the Hon'ble Prime Minister of an '*Atmanirbhar Bharat*' to make India a self-reliant nation, our indigenous defence industry needs to take the lead. This would also serve as engine for regional economic revival and growth. Aerospace manufacturing sector plays a pivotal role in our quest for self-reliance.

In the cyber domain, there is a need to espouse our sovereign right to frame national policies. A multi stakeholder approach would make cyber governance, stakes in managing internet, hardware employment, etc. multipartite, transparent and open to all. This would let us unveil the "trust deficit" in a domain that is largely managed by organisations contractually affiliated to a single nation.

To conclude, seen through the geopolitical prism of the security forces, India is central to the peace, stability and security in this region. As part of the Comprehensive National Power, air power would remain vital for providing a degree of assurance in strengthening regional peace and security initiatives. A modern air force operating in synergy with the Army and Navy will ensure that India fulfils its role as a net security provider. And the IAF is well poised for significant effort to serve national interests and provide key capabilities for extending a stabilising hand in the region.

**Jai Hind!**



# ARTIFICIAL INTELLIGENCE: EMERGING OPPORTUNITIES AND ASSOCIATED CHALLENGES

NISHANT GUPTA

## INTRODUCTION

In August 2020, Heron Systems won the Alpha Dogfight Challenge for their AI (Artificial Intelligence) algorithm beating a human fighter pilot in a virtual dogfight. It was the culmination of a yearlong US military aviation project under DARPA (Defence Advanced Research Project Agency) wherein eight select firms with various backgrounds had participated including large, traditional defence contractors like Lockheed Martin. The primary aim of the project was to “demonstrate the feasibility of developing effective, intelligent autonomous agents capable of defeating adversary aircraft in a dogfight”. The victory of Heron Systems suggests that small and agile companies with young, fertile, innovative and flexible minds have greater potential to harness the disruptive technologies through their algorithms vis-à-vis large defence contractors having known or unknown biases.

For a long time, Softwares have been assisting humanity in the decision-making process by making fast and accurate calculations and assisting in interpretation of humungous data at a great speed, but AI, one of the vital verticals of the Fourth Industrial Revolution, is taking algorithms to an entirely different level, fast making inroads in almost every sphere of

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life. AI has the unique feature of making the decision-making process autonomous without requiring human intervention and is expected to hugely impact almost all the fields, be it military, aviation, business models, the institutional framework, and the way we look at the world.

The disruptive technologies are maturing and changing the world at an unprecedented pace. Fictions of yesteryear are increasingly turning into reality. We appear to be moving towards a world wherein future would only be limited by constraints of ideas, and not by technology. Race for developing AI enabled technology could be as disruptive as the nuclear arms race of the 20th century. This research paper is an attempt to understand AI and the emerging challenges it is likely to pose in the near future.

## **UNDERSTANDING AI**

As per Klaus Schwab, the founder and executive Chairman of the World Economic Forum (which he began in 1971), the world is witnessing the beginning of the Fourth Industrial Revolution. The first industrial revolution spanned from about 1760 to around 1840 with initiation of the construction of railroads and the invention of the steam engine, which ushered in mechanical production. The second industrial revolution, fostered by the advent of electricity and the assembly line, enabled mass production from the late 19th century to the early 20th century. The third industrial revolution began in the 1960s. It is usually called the computer or digital revolution because it was catalysed by the development of semiconductors, mainframe computing (1960s), personal computing (1970s and 1980s) and the internet (1990s).<sup>1</sup> Building on the widespread availability of digital technologies that

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1. Klaus Schwab, *The Fourth Industrial Revolution* (New York: Crown Publishing Group, 2017).

were the result of the Third Industrial—or Digital—Revolution, the Fourth Industrial Revolution will be driven largely by the convergence of digital, biological, and physical innovations. The unfolding of Fourth Industrial Revolution would hinge upon certain disruptive technologies, including AI. Other emerging technologies that are likely to rapidly change the way humans create, exchange and distribute values include genome editing, augmented reality, robotics, block-chain, neuro-technology and 3-D printing.

AI has gained ascendancy in the previous decade but the term was coined way back in 1956 and has several dimensions which have been described by experts in various definitions. To understand the essence, some of the abridged definitions are given below:

“The exciting new effort to make computers think ... machines with minds in the full and literal sense.”<sup>2</sup>

“The art of creating machines that perform functions that require intelligence when performed by people.”<sup>3</sup>

“The study of how to make computers do things at which, at the moment, people are better.”<sup>4</sup>

“The study of mental faculties through the use of computational models.”<sup>5</sup>

“The study of computations that make it possible to perceive, reason, and act.”<sup>6</sup>

**The unfolding of Fourth Industrial Revolution would hinge upon certain disruptive technologies, including AI. Other emerging technologies that are likely to rapidly change the way humans create, exchange and distribute values include genome editing, augmented reality, robotics, block-chain, neuro-technology and 3-D printing.**

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2. Richard Bellman, *Artificial intelligence: Can Computers Think* (San Francisco: Boyd & Fraser Publishing Company, 1978).
  3. Ray Kurzweil, *The Age of Intelligent Machines* (USA: MIT Press, 1990)..
  4. Elaine Rich and Kevin Knight, *Artificial Intelligence* (New Delhi: Tata McGraw-Hill, 1991).
  5. Eugene Charniak, *Drew McDermott, Drew V. McDermott, Introduction to Artificial Intelligence* (New York: Addison-Wesley, 1985).
  6. Patrick Henry Winston, *Artificial Intelligence* (New York: Addison-Wesley Publishing Company, 1992).

“AI ... is concerned with intelligent behaviour in artefacts.”<sup>7</sup>

In a nutshell, AI is a technological pursuit towards making machines think like humans and act like humans in a rational and reasonable manner. Metaphorically, while Wright Brothers succeeded in making the first heavier than air machine fly, AI is aiming at making a machine that would fly exactly like a pigeon in a manner that neither pigeons nor humans would be able to distinguish between a real and AI enabled machine pigeon.

Even before the term AI was coined, Alan Turing (1950) had designed a Turing Test to provide a satisfactory operational definition of intelligence.<sup>8</sup> As per the Turing Test, a computer passes the test if a human interrogator, after posing some written questions, cannot distinguish whether the written responses come from a person or from a computer. Later, Total Turing Test was introduced, which also included a direct physical interaction so that the interrogator could assess the machine’s perceptual abilities and visual ability (ability to process video signals). Recently, a technology company presented Sophia, a robot who could interact, converse and answer the verbal questions in real time almost like a human being. To pass such tests, computers or machines would require to have the following broad capabilities:

**Table 1: Broad Verticals of Artificial Intelligence**

Natural Language Processing	To communicate successfully in a human language, say, English or Hindi
Knowledge Representation	To store what it knows or hears
Automated Reasoning	To use the stored information to answer questions and to draw new conclusions
Machine Learning	To adapt to new circumstances and to detect and extrapolate patterns
Computer Vision	To perceive objects
Robotics	To manipulate objects and move about

7. Nils J. Nilsson, *Artificial Intelligence: A New Synthesis* (San Francisco: Morgan Kaufmann, 1998).

8. “Turing Test: Artificial Intelligence”, at <https://www.britannica.com/technology/Turing-test>, accessed on September 23, 2020.

AI, based on capabilities, is essentially of three types, namely Weak or Narrow AI, General AI and Super AI. Weak or Narrow AI is a type of AI which is able to perform a dedicated task with intelligence. Some examples of Narrow AI are playing chess, purchasing suggestions on e-commerce site, self-driving cars, speech recognition, and image recognition. Alpha Dogfight Challenge also belongs to this very category. General AI is a type of intelligence which could perform any intellectual task with efficiency like a human. Super AI is a level of Intelligence of Systems at which machines could surpass human intelligence, and can perform any task better than humans with cognitive properties. As on date, the most common and currently available AI is Narrow AI. AI enthusiasts opine that AI world will graduate from Narrow to General and eventually to Super AI in quick succession. On the contrary, some experts believe that this transition would not be that easy and may take a very long time, if at all it fructifies.

### **AI IN OUR LIVES**

Undeniably, AI has subtly crept into our daily lives. Be it smartphones, social media, music and media and their streaming, video games, online streaming of advertisements, navigation and travel, banking and finance, smart home devices, smart cars, drones, security and surveillance systems, all are using AI technology in one way or the other. As per some estimates, over 75 per cent of the electronic daily devices are in some way powered through AI.<sup>9</sup> What advertisements we see online, what music is streamed to us, auto generated emails we receive when we do online banking, Google Assistant, Alexa or Siri, hiring of Uber or Ola taxis, GPS guidance for road routes and traffic analysis, online ticket booking sites, all involve commercial applications of AI technologies. There are more than 50,000 Tesla cars on US roads today and all are interconnected. Anything learned by one car is shared across

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9. "European Cooperation in Science and Technology: Session XXII", The Johns Hopkins Model United Nations Conference, February 7-10, 2019, at <https://www.jhumunc.org/wp-content/uploads/2018/11/European-Cooperation-in-Science-and-Technology-2019.pdf>, accessed on September 17, 2020.

all the cars. Global Digital Advertisement Industry, wherein targeted advertisements are pushed to the internet users after analysing their tastes, preferences and requirements, is expected to cross US\$300 billion in 2019. In American equities, computer driven investments including AI had reached US\$4.3 trillion in late 2019, exceeding the sums actively run by humans for the first time.<sup>10</sup> The 'Big 4' technology companies, namely, Apple, Amazon, Facebook and Google, have collective capital worth more than US\$5 trillion which is way beyond India's GDP, and all these companies are majorly investing in developing and harnessing AI technologies.

Recently, cognitive and articulation skills of AI were exhibited when GPT-3, an AI language generator that produces machine learning to produce human-like text, wrote an essay to convince the readers (read, humans) that robots have a peaceful purpose and humans have nothing to fear from AI. Robot entitled the essay "Are You Scared Yet, Human?"<sup>11</sup> The editor confessed that it took less time to edit this machine generated op-ed, than any human op-eds.

Remotely controlledUCAVs have exhibited their might in air-to-ground strikes in a favourable uncontested air space. The most recent demonstration of a successfulUCAV military operation was the neutralisation of Qasem Soleimani, an Iranian General in the Islamic Revolutionary Guard Corps, by an AmericanUCAV near Baghdad International Airport in January 2020. Such operations are remotely controlled operations of modern times exploiting high-end Network Centric Operations with a very high degree of C4I2SR (Command, Control, Communications, Computers, Intelligence, Information, Surveillance, and Reconnaissance).

Back home, state police and other government agencies have started deploying drones. Kerala police has inducted robots for police work. Chennai is witnessing robot themed restaurants where robots serve the customers and

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10. "The Rise of the Financial Machines", *The Economist*, October 3, 2019, at <https://www.economist.com/leaders/2019/10/03/the-rise-of-the-financial-machines>, accessed on September 11, 2020.

11. "Are You Scared Yet, Human?" *The Guardian*, September 8, 2020, at [https://amp.theguardian.com/commentisfree/2020/sep/08/robot-wrote-this-article-gpt-3?CMP=share\\_btn\\_tw&\\_\\_twitter\\_impression=true](https://amp.theguardian.com/commentisfree/2020/sep/08/robot-wrote-this-article-gpt-3?CMP=share_btn_tw&__twitter_impression=true), accessed on September 13, 2020.

also interact with them in English and Tamil. In Ahmedabad, a cardiologist performed the world's first in-human telerobotic coronary intervention on a patient located 32 km away. Complex, risk-intensive processes would be increasingly delegated to AI systems.

### **AI AND AIR COMBAT**

Air combat operates at an entirely different level. In today's technological scenario, air combat is performed by human pilots in three dimensions, in an extremely dynamic environment wherein two fighters approach each other at speeds in excess of 1,500 miles per hour, flying at altitudes near 40,000 feet, exploiting aerospace physics, skills, art and intuition to manoeuvre a fighter aircraft and missiles against an adversary. The selection and application of air-to-air tactics requires assessing a tactical advantage or disadvantage and reacting appropriately in microseconds. The cost of mistakes could be very high. Given an average human visual reaction time of 0.15 to 0.30 seconds, an even longer time to think of optimal plans and coordination with friendly forces for critical decisions inhibit remote operation of UCAVs in air combat.

Attempts are being made to address these limitations. There is a huge window of improvement that AI can capitalise upon. While some proponents of AI are looking at increasing autonomous capabilities in terms of heralding an era of designing aircraft that can perform extremely high-g manoeuvres as well as the benefit of reducing risk to our pilots, more challenging is to enhance capabilities of real-time autonomous decision making.

In 2016, a team comprising representatives from industry, US Air Force and University of Cincinnati, Ohio had organised a simulated air combat between ALPHA, an AI agent, versus an experienced fighter pilot and instructor of USAF. AI-enabled ALPHA defeated an experienced human combat flight instructor in a combat simulation, though defined and limited in many ways. ALPHA, a research tool for manned and unmanned teaming in a simulation environment, had consistently outperformed a baseline

**Heron System's AI enabled freewheeling learning through simulations and trial-and-error learnt better and faster as compared to Lockheed which had a fighter pilot for advising their efforts.**

computer program previously used by the Air Force Research Lab for research. In other words, it defeated other AI opponents.<sup>12</sup>

ALPHA was a genetic-fuzzy<sup>13</sup> system specifically designed for use with Unmanned Combat Aerial Vehicles (UCAVs) in simulated air-combat missions for research purposes. Researchers could make ALPHA operate in the domain of microseconds by utilising low-budget, consumer grade products. The speeds at which ALPHA can intelligently operate serve as a distinct

advantage within the context of air-to-air combat vis-à-vis human pilot.

Ever since, AI has been evolving. In the earlier mentioned DARPA project titled Alpha Dogfight Challenge, after two days of old school dogfighting, i.e., going after each other using nose-aimed guns only, amongst eight contestants Heron Systems emerged a winner against a human pilot and won five rounds to zero.<sup>14</sup> In a well-defined game of skills, machine outperformed humans once again. More importantly, existing knowledge and conscious and unconscious biases were found to be hindering the knowledge curve. Heron System's AI enabled freewheeling learning through simulations and trial-and-error learnt better and faster as compared to Lockheed which had a fighter pilot for advising their efforts. That is why, Heron Systems, a small group working on the machine learning and AI could win hands down.

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12. M. B. Reilly, "Beyond Video Games: New Artificial Intelligence Beats Tactical Experts in Combat Simulation", *UC Magazine*, June 27, 2016 published by University of Cincinnati, at [https://magazine.uc.edu/editors\\_picks/recent\\_features/alpha.html](https://magazine.uc.edu/editors_picks/recent_features/alpha.html), accessed on September 10, 2020.

13. Boolean system is absolutely binary. Truth value, 1 represents absolute truth value and 0 represents absolute false value. But in the fuzzy system, there is no logic for absolute truth and absolute false value. In fuzzy logic, there are intermediate values between 0 and 1 to represent what is partially true and partially false. The term fuzzy refers to things which are not clear or are vague. In the real world we often encounter situations when we can't determine whether the state is true or false, there fuzzy logic provides a valuable flexibility for reasoning considering the inaccuracies and uncertainties of any situation.

14. Patrick Tucker, "In five rounds, an Artificially-Intelligent Agent showed that it could outshoot other AI's, and a human. So what happens next with AI in air combat?" *Defense One*, August 20, 2020, at <https://www.defenseone.com/technology/2020/08/ai-just-beat-human-f-16-pilot-dogfight-again/167872/>, accessed on September 8, 2020.



At the same time, it is too premature to infer that fighter pilots will become obsolete soon. Human decisions/intervention would continue to matter. Rather, future air operations would witness greater synergy between fighter pilots and autonomous AI enabled systems. Humans will increasingly outsource AI for the highly skilled precision aspects of the military operations, while retaining the tasks in which humans are still the best, i.e., high order strategic thinking. Air Combat Evolution (ACE) Programme of DARPA is focused towards enhancing Machine-Human symbiotic relationship.<sup>15</sup>

**Future air operations would witness greater synergy between fighter pilots and autonomous AI enabled systems. Humans will increasingly outsource AI for the highly skilled precision aspects of the military operations, while retaining the tasks in which humans are still the best, i.e., high order strategic thinking.**

ACE seeks to create a hierarchical framework for combat autonomy in which higher-level cognitive functions like doctrines, strategies, engagement strategies and prioritisation of targets, target-weapon matching depending upon the desired effects would likely be performed by humans, while lower-level functions like engagement tactics will be left to autonomous machines. To begin with, visual dogfight like scenarios will be made more autonomous and slowly autonomy will progress towards beyond visual range engagements.

Emerging technologies are taking air combat in a direction wherein a single human pilot will be equipped to effectively orchestrate multiple autonomous unmanned platforms from within a manned aircraft, shifting the human role from a single platform operator to mission commander in a manner that the human pilot will be able to monitor and deliver a broader air mission while teamed unmanned systems would be engaged in individual tactics.

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15. Col. Daniel Javorsek, "Air Combat Evolution (ACE)", Defense Advanced Research Projects Agency, at <https://www.darpa.mil/program/air-combat-evolution>, accessed on September 16, 2020.

## **TACTICS AND AIR COMBAT IN IAF**

For about four decades, IAF's doctrines and tactics were largely influenced by the RAF. But the massive expansion of the 1960s involving acquisition of modern fighter aircraft and other operational platforms called for indigenous doctrines and tactics. Hence, IAF had established Tactics and Air Combat Squadron (TACS) in 1971, later, it was expanded to be known as Tactics and Air Combat Development Establishment (TACDE).<sup>16</sup> Since 1971, TACDE, has been developing combat tactics and proving its worth in peace as well as in war, be it the unprecedented victory of 1971 War, the precision bombing during Kargil War, Balakot Strike, or superior air combat tactics displayed during international air exercises in India or abroad.<sup>17</sup>

Management experts opine that companies with a mindset of previous decades (which harnessed IT revolution or the Third Revolution) are likely to meet their Kodak moment and perish, unless they proactively focus on emerging technologies and incessantly evolve a futuristic and interactive strategy. Redundancy of a company may lead to some socio-economic ripples but such voids would soon be filled by a more futuristic, dynamic and energetic business company since economic markets don't allow a vacuum to exist. However, national militaries, the last bastions of national defence, cannot afford to be found wanting when they are needed the most. To maintain/gain strategic competitive advantage over their adversaries, air forces need to be alive to the global emerging trends and need to work towards developing, adopting/adapting and exploiting the emerging trends in disruptive technologies, including AI.

## **AI RESEARCH IN INDIA**

Government of India has been pursuing the requirement of enhancing indigenous research on AI, Robotics, Big Data, and Scientific Research since

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16. Official website of the IAF, at <https://indianairforce.nic.in/content/tactics-air-combat-development-establishment>, accessed on September 12, 2020.

17. Interview of Air Marshal B Suresh (retd.), former Air Officer Commanding in-Chief Western Air Command who had three tenures in TACDE including Commandant, by Anantha Krishnan M posted at Tarmak Talking, at <https://www.youtube.com/watch?v=9HABv1o4Qp0>, accessed on September 10, 2020.

long. CAIR (Centre for Artificial Intelligence and Robotics) was established under DRDO way back in October 1986. In the recent past, many initiatives have been taken to enhance focus on harnessing the potential of AI. In 2017, Ministry of Commerce and Industry had constituted a Task Force to embed AI in national economic, political and legal thought processes so that there is systemic capability to support the goal of India becoming one of the leaders of AI-rich economies. In 2018, Department of Defence Production, under the Ministry of Defence, had constituted a Task Force for 'Strategic Implementation of AI for National Security and Defence', under the Chairmanship of Shri Natarajan Chandrasekaran, the Chairperson of Tata Sons. Amongst its other recommendations, this task force had recommended establishment of a high level Defence AI Council (DAIC) with RM as the Chairman and constitution of Defence AI Project Agency (DAIPA) with Secretary (Defence Production) as the Chairman.<sup>18</sup> In 2018, NITI Aayog published a detailed paper titled "Discussion Paper on National Strategy for Artificial Intelligence: AI For All".

The Union Budget of 2019 also emphasised on greater focus in higher education and scientific research in the country and establishment of National Centre for Artificial Intelligence. The 2019 Budget had proposed that 10 million individuals should be trained in industry-relevant skills like artificial intelligence, robotics, big data, VR and others to address the severe skill shortage which is felt by IT companies. A Centre of Excellence (CoE) in AI has been established at NIC for responsive governance and to work towards improving government service delivery to citizens.<sup>19</sup>

National Education Policy (NEP) 2020 has recommended establishment of a National Research Foundation to fund outstanding peer-reviewed research and to actively seed research in universities and colleges while enhancing focus on emerging fields of AI and data sciences. Expenditure

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18. Commander Subhasish Sarangi, "National Initiatives on Artificial Intelligence in Defence", Apr-Jun 2019, published on The United Services Institution of India, at <https://usiofindia.org/publication/cs3-strategic-perspectives/national-initiatives-on-artificial-intelligence-in-defence/>, accessed on September 23, 2020.

19. Official website of National Informatics Centre, at [https://www.nic.in/emerging\\_technology/centre-of-excellence-artificial-intelligence/](https://www.nic.in/emerging_technology/centre-of-excellence-artificial-intelligence/), accessed on September 23, 2020.

on education has also been recommended to be increased to 6 per cent of GDP. Currently, Govt of India spends about 3 per cent of its GDP on education.

AI research and development ecosystem largely requires three core components. First, availability of educated talented pool. Second, world-class educational institutions for academic research. Third, capable IT industry to create value products by harnessing the ecosystem and the national potential. Prima facie, India has the ecosystem and the necessary building blocks in place. India produced a whopping 2.6 million STEM (Science, Technology, Engineering and Mathematics) graduates in 2016, second only to China and more than 4 times the graduates produced by the USA.<sup>20</sup> IITs and IISc are well accomplished academic institutions of higher education and learning. TCS, Infosys and Wipro are some of the leading Indian IT companies with operations all over the world. Despite these advantages, India appears to be considerably lagging in producing world-class research and innovation in most technology fields, including in AI. Overwhelming majority of this talent pool, as per the NITI Aayog report, is focused on routine IT development and not so much on research and innovation. Exacerbating the problem further, a majority of the small population focused on research almost always prefers to pursue advance degrees (Masters or PhD degrees) to subsequently apply their expertise abroad.<sup>21</sup>

The contribution of the leading Indian IT services companies like TCS, Wipro and Infosys to research is found to be very limited. Given that these IT giants have been working closely with businesses globally and anticipating the trends in emerging technologies, it wouldn't be unreasonable to expect a sizeable volume of research work coming out of these companies. Yet, looking at all the research publications from 2001 to 2016, only 14 per cent of all publications have come from industry, with universities contributing 86 per cent of all publications. Even this limited research publication by

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20. Niall McCarthy, "The Countries with the Most STEM Graduates", *Industry Week*, February 6, 2017, at <https://www.industryweek.com/talent/article/21998889/the-countries-with-the-most-stem-graduates#:~:text=The%20World%20Economic%20Forum%20reported,recent%20STEM%20graduates%20in%202016>, accessed on September 12, 2020.

21. NITI Aayog, "Discussion Paper on National Strategy for Artificial Intelligence: #AI FOR ALL" (New Delhi: Government. of India, 2018), p. 50.

industry is dominated by Indian subsidiaries of international companies (~70 per cent), with only one Indian company featuring in top-10 (TCS). Indian IT industry with over US\$ 160 billion annual revenue, is yet to build worthwhile pioneering AI/Machine Learning capabilities commensurate with its potential. In 2017, Indian start-ups could raise just about US\$ 87 million, as against over US\$ 28 billion raised by the Chinese start-ups.<sup>22</sup>

For developing cutting-edge disruptive technologies, there is no alternative to intellectual and resource investments in R&D. Unfortunately, as compared to international initiatives, be it in government or private sector, India's track record in investments in R&D is not very encouraging. India's investment in research and innovation investment is just about 0.69 per cent of GDP. On the other hand, Israel invests about 4.3 per cent, South Korea about 4.2 per cent and USA about 2.8 per cent of their respective GDPs.<sup>23</sup> In India, even this minuscule investment is not being effectively utilised for undertaking quality research in Higher Education. As per NEP 2020, despite various initiatives and improvements in the status of the academic profession, faculty motivation in terms of teaching, research, and service in higher education institutes (HEIs) could be improved.<sup>24</sup>

Data on engineering colleges in India is hugely perplexing. On the one hand, AICTE (All India Council of Technical Education) has started discouraging opening of new engineering colleges owing to existing college seats remaining vacant (out of 27 lakh net intake capacity, only 13 lakh students took admissions in 2019-20, leading to more than 50 per cent vacant seats).<sup>25</sup> On the other hand, admission in IITs is considered one of the most challenging admission processes globally, wherein for about 23,000 seats in the IITs more than 8 lakh students competed and applied for JEE (Joint Entrance Examination) in 2020.

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22. Ibid., pp. 71-72.

23. Ministry of Human Resource Development, National Education Policy 2020 (New Delhi, 2020), Part II, p. 45.

24. Ibid., p. 40.

25. "AICTE not to Set up New Engineering Colleges for 2 Years", *The Week*, February 14, 2020, at <https://www.theweek.in/news/sci-tech/2020/02/14/AICTE-No-new-engineering-college-for-2yrs.html#:~:text=The%20All%20India%20Council%20for,too%20many%20institutes%20offering%20B>, accessed on September 16, 2020.

**There is a need to change the focus from churning out huge quantities of low grade engineering graduates, that too in traditional streams, to enhancing quality education in emerging fields including AI, deep learning and machine learning, and create world-class academic institutions to produce highly competent researchers.**

As per the Global AI Talent Report 2018, out of a total of 22,000 PhD educated researchers worldwide, India has only 386. The report also looks at leading AI conferences globally for presenters who could be considered influential experts in their respective field of AI. On this metric, India was ranked 13th globally, with just 44 top-notch presenters. It is estimated that serious research work in India is limited to less than 50 researchers, concentrated mostly at institutes like IITs, IIITs and IISc. While India may be producing research pieces in huge numbers, their utility has been considered rather limited. Looking

at the research coming out of academic institutes, the numbers are heavily skewed in favour of top-15 institutes which have contributed more than 42 per cent of all research publications from 2001 to 2016. IISc dominates the research publications, with 7.5 per cent of all publications coming from this institute. For a country that has more than 750 universities and close to 40,000 colleges, this concentration of publications is a worrying sign.<sup>26</sup> Undoubtedly, there is a need to change the focus from churning out huge quantities of low grade engineering graduates, that too in traditional streams, to enhancing quality education in emerging fields including AI, deep learning and machine learning, and create world-class academic institutions to produce highly competent researchers.

Data is the bedrock of AI systems and reliability of AI systems depends primarily on quality and quantity of the data. One of the important challenges in India is to collect, validate, standardise, correlate, archive and distribute AI related data, making it accessible to organisations, peoples and systems without compromising privacy and ethics.<sup>27</sup>

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26. NITI Aayog, n. 21, p. 51.

27. Sarangi, n. 18.

**LEGAL/ETHICAL CHALLENGES  
ASSOCIATED WITH AI**

Will advent of AI reduce the legal conflicts or will it enhance the burden on legal structure? Is our legal framework and other government machinery adequately equipped to handle emerging legal challenges as the ground-breaking technologies mature and scope of their commercial usage expands? Probably not. Certain examples of complexities associated with AI and machine learning are enumerated in subsequent paragraphs.

Suppose there is an accident of an autonomous car. What mechanism will follow to judge who is the liable/guilty party? Will it be the programmer in the office who made the source code? Will it be the owner of the car or the passenger(s) at the time of the accident? Will it be the manufacturer in the lab with the testing protocols? As per some media news, in the self-driving cars, Mercedes-Benz has chosen to prioritise passengers' safety over pedestrians'. Will it be legally and ethically acceptable to give such priority or would it be unethical and against the Fundamental Right of Equality of pedestrians? What will be the impact of driverless cars on the insurance premium being charged for the cars with human drivers since driverless cars would be expected to be much safer and '*human error proof*'.

Most of the current AI systems and their algorithms work in a manner that only input data and results are known to the developers. This is commonly known as "Black Box Phenomenon". What is happening in-between is not known since developers are entirely focusing on incremental improvement in the system. But, understanding of the decision making process would be significant from the legal and ethical perspectives.

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What should the algorithms dictate in a situation of an inevitable accident? How would an autonomous car choose between the options of saving the passenger or the pedestrian or the property? Trolley Problem, introduced by Philippa Foot in 1967, is a well-known instrument to highlight the moral question of utilitarianism. Whether it would be socially and morally acceptable to allow someone to die in an accident for a greater good of saving others? Killing someone to save more lives or letting someone die in order to save more lives have entirely different neurological and ethical connotations. What statistical logics should be defined to programme driverless vehicles needs further debate. Germany has covered some ground in this regard by incorporating ethical rules for the driverless vehicles mandating that human life would always be given priority over property or animal life. China, Japan and Korea are following the lead.

Similarly, if a telerobotic invasive surgery on a patient in India is performed by a surgeon physically located overseas—and having different law of the land—doesn't unfold in the intended manner owing to failure of electricity, then what legal action can be initiated and against whom? How should the responsibility be fixed? Similarly, there could be an unintended damage by an AI operated UCAV operating in/transiting through a foreign airspace.

Who will be responsible if an AI enabled machine commits a crime? Switzerland is witness to a case wherein Random Darknet Shopper, a robot that can be purchased online, had bought a contraband item—ecstasy pills—online using the deep web. Similarly, The CyberLover, a chatbot malware, could engage people in conversations with the objective of inducing them to reveal information about their identities or to lead them to visit a website that will deliver malicious content to their computers.<sup>28</sup>

AI systems largely apply learning techniques from statistics to find patterns in large sets of data and make predictions based on these patterns which are used in a variety of applications. Many believe that data science is not neutral since predictive models and algorithms bear the biases and

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28. S. Withers, "Flirty Bot Passes for Human", at <https://www.itwire.com/your-it-news/home-it/15748-flirty-bot-passes-for-human>, accessed on June 14, 2019.



prejudices of the people who have created and are using them. Hence AI is inherently biased. Such sociologists opine that marginalised sections of society should not expect any justice from data science.

Will the Robots be humanised? As the distance between AI and Homo Sapiens is reducing, AI may get closer to actual consciousness. Will attributing them a legal entity be in order? Though parallels cannot be drawn, there are enough examples of according legal entity to various non-living objects. New Zealand had passed a law recognising Whanganui River as a legal entity in 2017. Back home, in 2000, the Supreme Court of India recognised the main sacred text of the Sikhs, the Guru Granth Sahib, as a legal entity.<sup>29</sup> On the other hand, in 2017 the Supreme Court had overruled an order by the High Court in Uttarakhand state, which said that the Ganges and Yamuna rivers had the same legal status as human beings and directed that these two rivers cannot be viewed as living entities. All registered business companies are considered as legal entities in order to carry out justice in a speedy and effective manner. Moreover, legal entities are only deemed to be criminally liable if it is determined that an individual was performing illegal actions on behalf of the legal entity. However, the actions of artificial intelligence-based systems will not necessarily be traced back to the actions of an individual. Another important question is, can the robots act as a witness in a legal case?<sup>30</sup>

It is a known fact that government, law making and state bureaucracy generally find it difficult to match up with the speed with which the business companies evolve. In India, law of the land has its own excruciatingly slow speed of delivery. India has a pendency of about 3.3 crore cases and average pendency of a case reaching up to Supreme Court is about 23 years.

For certain crimes probably the entire law process can be automated with the help of AI. Say, detecting and challan process for overspeeding of cars in a city. The core objective of such technology is efficiency and reduction in manual labour. But, some specialists opine that humans may

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29. T. P. Rao, "Guru Granth Sahib, A Juristic Person: SC", *The Hindu*, Hyderabad, April 3, 2000.

30. G. S. Bajpai and M. Irshad, "Artificial Intelligence, the Law and the Future", *The Hindu*, Hyderabad, June 11, 2019.

be inefficient yet they are more capable of connecting ethical issues and contextualising the decision making process. Human involvement also helps in preserving the basic tenets of law enforcement—leniency and discretion. Therefore, it is opined that simple jobs like document coding may be automated but situations involving conflicting rights, unique fact patterns and open-ended laws would be difficult to automate. AI related legal cases will certainly enhance the challenges for lawyers as well as for judges and judicial officers. The NITI Aayog report has also touched upon the questions of ethics, privacy and security and has suggested that a consortium of Ethics Councils may be constituted at each Centre of Research Excellence (CORE).<sup>31</sup>

Legally, to begin with, there is a need to articulate legal definition of AI. AI needs to be accountable, fair and transparent. Sustainability of an innovation is as important as its social acceptability. Ethics and law are linked to each other in an inextricable manner. Many legal decisions have their basis in the ethical dimensions. Working on liability scheme and Intellectual Property Rights (IPR) issues is also important. Regulating usage and security of data is a critical aspect since privacy is a fundamental right.

### **THE WAY AHEAD**

The human mind is extremely powerful. While some believe that it will always have unbeatable performance in certain areas, others paint a futuristic environment wherein AI will overtake human intelligence in a comprehensive manner, be it natural intelligence or emotions. In any case, performance of AI and its applications are going to increase across the spectrum in a big way, including the field of air combat.

The unprecedented speed of the Fourth Industrial Revolution would not give the militaries, governments and the supranational organisations much time to act. Looking into the future for predicting technology advancements and associated dimensions—including legal/ethical issues—would be a

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31. NITI Aayog, n 21.

complex process. AI would also affect the way we look at state-corporate-citizen relationship. Hence, governance would confront major challenges and it cannot afford to fail. Sweden, way back in 1973, in a ground-breaking move for future planning, had appointed a Minister of State to review the role of future studies. Subsequently, in 2014 “Ministry of the Future” was created.<sup>32</sup> Sweden, along with South Korea, are amongst the few countries to have such a body.

India could take a leaf from their book, since today, for the economic, intellectual, societal, environmental, and technological health and progress of the nation, criticality of quality research and ‘out of the box’ thinking is required more than ever before. All the stakeholders need to urgently start working on a multidisciplinary approach towards understanding the nuances of the emerging field of AI, evolving dependable and implementable ecosystem in a time-bound and swift manner so that quality research is pursued. Institutionalisation of robust laws is indicated to effectively and logically deal with various contingencies which AI will throw up. A delayed response would increase the competitive gap to an extent that India might lag behind to a point of no return.

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32. “Sweden: A ‘Ministry of the Future’ to Think about Tomorrow’s Public Policy”, *Responsive Public Management*, no. 82, April 2016, at [https://www.economie.gouv.fr/files/files/directions\\_services/igpde-editions-publications/revuesGestionPublique/IGPDE\\_Reactive\\_Suede\\_avril\\_2016\\_En.pdf](https://www.economie.gouv.fr/files/files/directions_services/igpde-editions-publications/revuesGestionPublique/IGPDE_Reactive_Suede_avril_2016_En.pdf), accessed on September 17, 2020.

# CHINA'S ASPIRATIONS AND THE IMPORTANCE OF HISTORY

SHANTANU ROY-CHAUDHURY

Often proclaimed the Asian Century, there is little doubt that one country has been surging ahead of the pack in the past decade. China's impressive rise over the years, both in terms of economic prosperity, geopolitical clout, and international prestige is no anomaly. From having a similar nominal Gross Domestic Product (GDP) to that of India in the 1980s, China's GDP in 2019 is almost five times India's.<sup>1</sup> According to China's own estimates, the country has not only succeeded in pulling millions out of poverty, but has also been crowned the factory of the world and is now eyeing the mantle of becoming a global Superpower. Supported by an extremely rich civilisational history spanning millennia where China perceived itself at the centre of the world, the People's Republic of China (PRC) has its eyes set on becoming strong enough to prevent another century of humiliation and replicating the supremacy of old. This includes the 'Made in China 2025' milestone for transitioning from a low-end manufacturer of goods to a high-end producer of goods. More importantly, it includes celebrating two centenary milestones by achieving two goals: becoming a "moderately well-off society" by 2021, marking the 100th anniversary of the establishment

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1. "GDP (current US\$)—India, China," *The World Bank*, at <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?end=2019&locations=IN-CN&start=1960&view=chart>, accessed on July 16, 2020.

**Supported by an extremely rich civilisational history spanning millennia where China perceived itself at the centre of the world, the People's Republic of China (PRC) has its eyes set on becoming strong enough to prevent another century of humiliation and replicating the supremacy of old.**

of the Chinese Communist Party (CCP), and becoming a fully developed nation and a global leader by the 100th anniversary of the foundation of the People's Republic of China in 2049. Working towards these goals will "shape China's long-term economic plans and inform the country's approach to everything from geopolitical issues to climate change policies."<sup>2</sup>

Keeping the above in mind, the objective of this paper is to examine how China has got to its current position in the world, what inspirations and motivations the Communist Party draws from, and the initiatives taken to put China on the path to achieving her dreams. It also brings to light the domestic and global costs of its ambitions and examines whether Beijing's increasingly assertive foreign policy can be historically justified. According to the United States (US) Department of Defense, "Understanding the origins of China's national rejuvenation is crucial to understanding how China will likely shape and pursue this strategic objective."<sup>3</sup> The first section introduces the idea of the 'China Factor', or the different ways in which countries view their relations with China. The following sections of the paper seek to understand China's aspirations and the importance of history that has led us to the present scenario of Beijing's assertive geopolitical posturing. The second section traces Chinese history from the First Opium War in 1839 that began the century of humiliation till the founding of the People's Republic of China in 1949, and examine why it's called the century of humiliation and how although an entirely domestic

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2. "Global China 2049 Initiative", *Overseas Development Institute*, at <https://www.odi.org/projects/china-2049-initiative>, accessed on July 16, 2020.
  3. Office of the Secretary of Defence, "Military and Security Developments Involving the People's Republic of China 2020", Annual Report to Congress 2020, United States Department of Defense, September 1, 2020, at <https://media.defense.gov/2020/Sep/01/2002488689/-1/-1/1/2020-DOD-CHINA-MILITARY-POWER-REPORT-FINAL.PDF>, accessed on July 16, 2020.

discourse, the period has since influenced China's foreign policies and reinforced the Sino-centrist worldview and ambition to become the political, economic, and cultural centre of the world.<sup>4</sup> The third section highlights how China's leaders till Xi Jinping have sought to regain China's position in the world and examine select policies and events under them that bolstered China's prestige on the international stage. The fourth section focuses on China's military and foreign policy rise under the current leader, Xi Jinping, who since his ascent has been following a more assertive foreign policy combined with a distinct new strategy at a quicker pace.<sup>5</sup> The final section highlights the importance of understanding the history before embarking on analysing contemporary events when it comes to China's foreign policy and ambitions as it helps to better comprehend the CCP's inspirations and motivations.

**The value of China's trade increased from three per cent of total global trade in 1995 to 12.4 per cent by 2018, amounting to US\$ 4.6 trillion. China is the leading trade partner in terms of exports for a majority of the largest economies which includes US\$ 418.6 billion with the United States.**

## THE CHINA FACTOR

The 'China Factor' plays an important role across the globe in the 21st century and manifests itself in three ways.

### *Global Trade*

For most countries, the 'China factor' entails trading with China. The value of China's trade increased from three per cent of total global trade in 1995 to 12.4 per cent by 2018, amounting to US\$ 4.6 trillion.<sup>6</sup> China is the leading

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4. John Cranmer-Byng, "The Chinese View of Their Place in the World: An Historical Perspective," *The China Quarterly*, No. 53, (1973): 67-79.

5. Elizabeth C. Economy, *The Third Revolution: Xi Jinping and the New Chinese State* (New York: Oxford University Press, 2018).

6. China Power Team, "Is China the world's top trader?," *China Power*, March 17, 2020, at <https://chinapower.csis.org/trade-partner/>, accessed on July 17, 2020.

trade partner in terms of exports for a majority of the largest economies which includes US\$ 418.6 billion with the United States, US\$ 143.2 billion with Japan, US\$ 111 billion with South Korea, and US\$ 74.9 billion with India, amongst others.<sup>7</sup> With an overall trade surplus of US\$ 429.6 billion in 2019, the country has an enormous competitive advantage and that enables the countless opportunities looking ahead.

### *The Belt and Road Initiative*

The second manifestation of the 'China Factor' is in terms of increasing investments and infrastructure projects around the globe. Spurred by the Belt and Road Initiative, over 60 countries, accounting for more than two-thirds of the world's population, have signed on to cooperate on the initiative. The BRI seeks to link countries across Asia, Africa, and Europe, with investments also taking place as far as South America.

### *Geopolitical Aspirations*

The third way the 'China Factor' presents itself to countries is through foreign policy flexing tactics to achieve its geopolitical objectives. Beijing has been carrying this out primarily through four methods. The first includes pressing territorial and boundary issues with its neighbours as Beijing has done in the South China Sea (SCS), the Senkaku/Diaoyu islands with Japan, and on the Line of Actual Control with India. The second is through increased militarisation. This has increasingly been seen in the SCS and involves a growing naval presence in the region along with numerous provocations such as the firing of an 'aircraft-carrier killer' missile as a warning to the United States.<sup>8</sup> China has also increased the frequency of its fly-by manoeuvres with fighter aircraft and bombers crossing into Taiwan's

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7. Daniel Workman, "China's Top Trading Partners", *World's Top Exports*, June 18, 2020, at <http://www.worldstopexports.com/chinas-top-import-partners/>, accessed on July 17, 2020.

8. Kristin Huang, "Chinese military fires 'aircraft-carrier killer' missile into South China Sea in 'warning to the United States'", *South China Morning Post*, August 26, 2020, at <https://www.scmp.com/news/china/military/article/3098972/chinese-military-launches-two-missiles-south-china-sea-warning>, accessed on July 20, 2020.

air defence identification zone for the first time in years in 2019.<sup>9</sup> The third method includes China's coercive diplomacy which Beijing has escalated since 2018. Over the past decade, 152 cases of coercive diplomacy have been recorded against 27 nations seeking to defend the CCP's core interests.<sup>10</sup> These include economic measures such as trade sanctions and investment restrictions, and non-economic measures involving arbitrary detentions and state-issued threats. The fourth method Beijing has been propagating is chequebook diplomacy and the use of the BRI as a means of foreign assistance and investments. This leads to the possibility of the BRI being an umbrella for a greater global footprint which could potentially have alternative uses that could further China's strategic ambitions.

### THE CENTURY OF HUMILIATION

To understand China's current ambitions and policies, it is important to place it in a wider historical context. For almost all of its history, China has been a Superpower, and simply put, wants what it always had—to be a Superpower again.<sup>11</sup> From a Chinese perspective, being the richest and most advanced civilisation in East Asia, they believe China has a right to be the premier power in the world. At its peak, the entire world order in East Asia revolved around the Chinese model, with China's economy at the heart of an elaborate trading network and surrounded by a tributary system with the Chinese at the top of the hierarchy. China's military, economic, and cultural influence, combined with the important scientific inventions emanating from China, resulted in the Middle Kingdom being the largest or second-largest economy in the world continuously from AD 1 till the 19th century and the dawn of the century of humiliation.

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9. Ben Blanchard, "Chinese bomber approaches Taiwan in latest fly-by near island", Reuters, June 22, 2020, at <https://www.reuters.com/article/us-taiwan-china-defence/chinese-bomber-approaches-taiwan-in-latest-fly-by-near-island-idUSKBN23T19Z>, accessed on July 20, 2020.

10. Fergus Hanson, Emilia Curry and Tracy Beattie, "The Chinese Communist Party's Coercive Diplomacy", *Australian Strategic Policy Institute*, Policy Brief Report No. 36/2020, August 2020, at <https://bit.ly/2Fl1oXl>, accessed on July 20, 2020.

11. Michael Schuman, *Superpower Interrupted: The Chinese History of the World* (New York: Hachette Book Group, 2020).



On September 4, 1839, amidst rising tensions between the Chinese and British in Kowloon, events would unfold leading to the first armed conflict of what would be known as the First Opium War. The inevitable British victory in the war that lasted till 1842 and the resulting Treaty of Nanjing became the first of what would be called the unequal treaties signed between China and the Western powers. Although the actual number of these treaties signed is unclear, they have become an important source to draw from for achieving national salvation and strength.<sup>12</sup> The main characteristics of these treaties were that they gave the foreign powers rights and privileges that were not reciprocated; that China was always placed in a weaker position through them; and that they were imposed by military force.<sup>13</sup>

This historical event, which included ceding Hong Kong to Queen Victoria as a treaty port, and opening up China to the vices of Western capitalism was the start of what is known as China's Century of National Humiliation. This period encompasses numerous defeats and concessions to foreign powers. It includes the First (1839-1842) and Second (1856-1860) Opium War, by the end of which the Qing dynasty was forced to give Britain and France favourable tariffs, trade concessions, and territory. Terms of the Treaty of Nanjing, which ended the First Opium War, included the opening of five treaty ports of Canton, Xiamen, Fuzhou, Ningbo, and Shanghai where foreign merchants were allowed to trade freely. The Qing government also had to pay six million silver dollars for the opium that had been confiscated in 1839, and the payment of US\$ 12 million in war reparations. Combined with other payments, a total of US\$ 21 million were to be paid to the British. Additionally, the Chinese had to release all British prisoners, and, finally, had to cede Hong Kong Island to the British Crown. The Treaty of Tianjin in 1858 that ended the first part of the Second Opium War led to the Qing government being forced to open more treaty ports, allow activities of Christian missionaries, and allow the establishment of permanent diplomatic

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12. Dong Wang, "The Discourse of Unequal Treaties in Modern China", *Pacific Affairs* 76, no. 3 (2003): 399-425.

13. Edmund S. K. Fung, "The Chinese Nationalists and the Unequal Treaties 1924-1931", *Modern Asian Studies* 21, no. 4 (1987): 793-819.

legations by the British, French, Russians, and Americans in Beijing. Once again, the Chinese also had to pay 6 million *taels*<sup>14</sup> of silver to the French and British. During this period, a separate treaty was also signed with Russia. The Treaty of Aigun resulted in the Russian Empire receiving over 600,000 sq km from China, and established the modern border between the Russian Far East and Manchuria. It was in this area gained from China that the city of Vladivostok was later founded. The second part of the war led to the Convention of Peking in 1860 where the Treaties of Tianjin and Aigun were ratified, a part of Kowloon was ceded to the British, freedom of religion was established in China, and the opium trade was legalised. The Sino-French War (1884-1885) resulted in the Treaty of Tientsin where China ceded control of Annam and the Tonkin region in northern Vietnam to France. The First Sino-Japanese War (1894-1895) exposed the Qing dynasty's failed attempts to modernise its military and led to Japanese control over the Liaodong Peninsula, Taiwan, and the Penghu Islands through the Treaty of Shimonoseki. The treaty also led to China recognising the independence of Korea, and granting Japan a most favoured nation status for foreign trade. This was especially humiliating as the Japanese were historically always seen as subordinates to the Chinese. The Boxer Uprising (1899-1901) led to the repression of a Chinese anti-imperialist rebellion by the Eight-Nation Alliance consisting of the British Empire, Russia, Japan, France, Germany, the United States, Italy, and Austria-Hungary. The ensuing Boxer Protocol signed between the Qing Government and the Eight-Nation Alliance led to China having to pay 450 million *taels* of silver over 39 years to the eight nations, prohibiting the import of arms and ammunition along with their production for two years, and conceding the right to the victorious powers to station troops in designated areas. The British invasion of Tibet (1903-1904) by British Indian forces led to the occupation of the Chumbi valley and trading rights in Yadong, Gyantse, and Gartok under the Treaty of Lhasa. Tibet was also prohibited from having relations with other foreign powers.<sup>15</sup> The Twenty-One Demands made by

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14. A *tael* is a unit of weight used in East Asia. *Taels* of silver were used as currency and one *tael* was approximately 40 grams.

15. Amanda J. Cheney, "Tibet Lost in Translation: Sovereignty, Suzerainty and International Order Transformation, 1904-1906", *Journal of Contemporary China* 26, no. 107 (2017): 769-83.

**Addressing the 19th National Congress of the Communist Party of China in 2017, President Xi Jinping echoed the sentiment felt by the nation of the period after the First Opium War. He stated, “China was plunged into the darkness of domestic turmoil and foreign aggression; its people were ravaged by wars, saw their homeland torn, and lived in poverty and despair.”**

Japan during the First World War in 1915 extended Japanese control over Manchuria, and the subsequent Japanese invasion of Manchuria (1931-1932) established a puppet state of Manchukuo which lasted until the Manchurian Operation. Led by the Soviet Union and Mongolia in August 1945 against the Japanese, the operation was the last large-scale campaign of World War II.<sup>16</sup> The invasion of Manchuria led to the Tanggu Truce which resulted in the Kuomintang government recognising Manchukuo. A demilitarised zone was also created from Beijing to Tianjin which left the Great Wall of China under Japanese control. The subsequent Second Sino-Japanese War (1937-1945) which, although it resulted

in Japanese defeat, included the Nanjing massacre which killed as many as 300,000 Chinese. The capture of Nanjing by Japanese forces was purely symbolic as taking the city would demonstrate Japanese victory over Chinese nationalism. From hours into the capture of the city and over the next six weeks, Japanese soldiers “embarked on an uninterrupted spree of murder, rape and robbery.”<sup>17</sup>

Dominated by foreign powers, the Chinese were not only routinely routed, weakened, and humiliated, but they also lost a third of their territory along with millions of their population.<sup>18</sup> Addressing the 19th National Congress of the Communist Party of China in 2017, President Xi Jinping echoed the

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16. John Despres, Lilita Dzirkals and Barton Whaley, *Timely Lessons of History: The Manchurian Model for Soviet Strategy*, R-1825-NA (Santa Monica: RAND, July 1976), at <https://www.rand.org/content/dam/rand/pubs/reports/2005/R1825.pdf>, accessed on July 27, 2020.

17. Rana Mitter, *Chinas War with Japan 1937-1945: The Struggle for Survival* (London: Penguin, 2014), p. 130.

18. Andy S. Lee, “A Century of Humiliation: Understanding the Chinese Mindset”, *The McGill International Review*, February 18, 2018, at <https://www.mironline.ca/century-humiliation-understanding-chinese-mindset/>, accessed on July 28, 2020.

sentiment felt by the nation of the period after the First Opium War. He stated, "China was plunged into the darkness of domestic turmoil and foreign aggression; its people were ravaged by wars, saw their homeland torn, and lived in poverty and despair."<sup>19</sup> This fall from glory which was preceded by centuries of unchallenged Chinese dynasties ended with the birth of the People's Republic of China in 1949 under Mao Zedong. During the First Plenary Session of the Chinese People's Political Consultative Conference on September 21, 1949, Mao declared, "Ours will no longer be a nation subject to insult and humiliation. We have stood up."<sup>20</sup> Since then, the Chinese elite has been exploring ways to make China great again, having drawn three lessons from the past. First, they believe that China deserves recognition as the greatest country in the world. Second, they view territory loss as a hinderance to greatness, and third, the Chinese elite perceive the world's powers as being exploitative.<sup>21</sup> Cumulatively, these lessons point towards the need for China becoming a powerful state.

China has since sought to rebuild its prestige and regain the title of the world's largest economy by 2049, celebrating a century of the PRC.<sup>22</sup> Apart from being one of the driving forces of contemporary Chinese politics, this humiliation has been an integral part of constructing Chinese nationalism and to celebrate the foundation of the PRC.<sup>23</sup> The string of defeats also led to

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19. Xi Jinping, "Secure a Decisive Victory in Building a Moderately Prosperous Society in All Respects and Strive for the Great Success of Socialism with Chinese Characteristics for a New Era", Speech, 19th National Congress of the Communist Party of China, October 18, 2017.

20. Mao Zedong, "The Chinese People Have Stood Up!", Speech, First Plenary Session of the Chinese People's Political Consultative Conference, September 21, 1949.

21. Denny Roy, *Return of the Dragon: Rising China and Regional Security* (New York: Columbia University Press, 2013).

22. Wendell Cox, "500 Years of GDP: A Tale of Two Countries", *New Geography*, September 21, 2015, at <https://www.newgeography.com/content/005050-500-years-gdp-a-tale-two-countries>, accessed on July 28, 2020.

23. William A. Callahan, "National Insecurities: Humiliation, Salvation, and Chinese Nationalism," *Alternatives* 29 (2004): 199-218.

China undergoing enormous modernisation and industrialisation efforts in the subsequent decades. In contemporary times, the century of humiliation has been invoked in support of the country's enormous infrastructure projects that form the BRI to territorial claims in the South China Sea, and the quest for the return of Taiwan under the PRC.<sup>24</sup> Therefore, to ensure history does not repeat itself, China's geopolitics and foreign policy ambitions reflect this sentiment.

### **REGAINING LOST GLORY**

Ever since the birth of the People's Republic of China, the nation has desired to become a leading nation which has been the driving force of China's leaders and the commonality of their struggles.<sup>25</sup> Leaders since Mao have also been systematically working towards avenging the century of humiliation and becoming the world leader in terms of economy, military, and political power by 2049. While reassuring nations that China will not dominate anyone while becoming the most powerful nation, Chinese leaders have stated they merely "want to restore China to its former global position of three hundred years ago".<sup>26</sup> This section will highlight the policies and events of China's paramount leaders from Mao Zedong to Xi Jinping to showcase their role in increasing China's standing and prestige on the global stage.

#### *Mao Zedong*

With the birth of the PRC in 1949, Chairman Mao Zedong believed that China's goal should be to catch up to the United States and strive to surpass it. In a 1955 speech, Mao stated China was currently an embarrassment compared to its civilisational history, territory, and population. He added the nation needs to work hard to become a prosperous one, a responsibility

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24. Maximilian Mayer, "China's historical statecraft and the return of history", *International Affairs* 94, no. 6 (2018): 1217.

25. Liu Mingfu, *The China Dream: Great Power Thinking & Strategic Posture in the Post-American Era* (New York: CN Times Books, Inc., 2015).

26. Michael Pillsbury, *The Hundred-Year Marathon* (New York: St. Martin's Griffin, 2015), p. 13.

owed to the entire world. To make a clean break from the foreign policy previously followed, he declared the principle of “starting anew”.<sup>27</sup> This would include renouncing all diplomatic relations established by the previous Kuomintang Government and reviewing all treaties and agreements, certainly to ensure none resonated to the unequal treaties of the past. China would then go on to re-establish diplomatic relations with the world. Subsequently, to install a Communist dictatorship in China, the founding father of the PRC rooted out all the opposition and transferred the means of production from private to socialist control.<sup>28</sup> The Cultural Revolution was launched in 1966 to reassert Mao’s authority over the government where he called upon the youth to “purge the impure elements of Chinese society and revive the revolutionary spirit”, after he felt the Communist leaders were taking China in the wrong direction and had become estranged from those whom they were supposed to serve.<sup>29</sup> His position had weakened due to the Second Plan, 1958-1962—known as the Great Leap Forward campaign which had sought to elevate China to the industrialised world and catch up with the US and the United Kingdom—which failed and resulted in the Great Famine of 1960-1962 during which 30 million Chinese lost their lives.<sup>30</sup> The Cultural Revolution, however, created divisions within the CCP, state, and the military, and led to 1.5 million people dying and the general public further losing faith in the government. On the international stage, as a part of Mao’s initiatives to improve China’s standing in the world, he outlined principles for economic aid and technical assistance to other

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27. “Formulation of Foreign Policy of New China on the Eve of its Birth”, Ministry of Foreign Affairs of the People’s Republic of China, at [https://www.fmprc.gov.cn/mfa\\_eng/ziliao\\_665539/3602\\_665543/3604\\_665547/t18057.shtml](https://www.fmprc.gov.cn/mfa_eng/ziliao_665539/3602_665543/3604_665547/t18057.shtml), accessed on July 29, 2020.

28. Roderick MacFarquhar, “How Mao Molded Communism to Create a New China”, *The New York Times*, October 23, 2017, at <https://www.nytimes.com/2017/10/23/opinion/how-mao-molded-communism-to-create-a-new-china.html>, accessed on July 29, 2020.

29. “Cultural Revolution”, *History*, April 3, 2020, at <https://www.history.com/topics/china/cultural-revolution>, accessed on July 30, 2020.

30. Helen Gao, “After 50 Years of Silence, China Slowly Confronts the ‘Great Leap Forward’”, *The Atlantic*, May 29, 2012, at <https://www.theatlantic.com/international/archive/2012/05/after-50-years-of-silence-china-slowly-confronts-the-great-leap-forward/257797/>, accessed on July 30, 2020.

countries in a state visit to Ghana in January 1964. The principles were based on the principle of equality and mutual benefit and respecting the sovereignty of the recipient countries. Furthermore, Mao stated the purpose was not to make the recipient countries dependent on China, but to help them on the road to independent economic development and to assist in building projects which would yield quick results.<sup>31</sup>

Apart from the Five-Year Plans and other economic policies initiated by Mao to make China self-sufficient, end the country's dependence on agriculture, and set the path towards becoming a world power, the Chairman established the Two Bombs, One Satellite (nuclear and space) project. Launched in January 1955, this vital project would not only increase China's security and reputation in the world, but it would also set the path for decades of technological achievements and advancements. The two bombs referred to an atomic bomb (and later the hydrogen bomb), and the intercontinental ballistic missile. The satellite referred to the aim of launching an artificial satellite into space. By joining the nuclear club, China would join an elite group of three nations who would then be able to negotiate and "save mankind from a nuclear holocaust" and also allow Beijing to become a major international influencer.<sup>32</sup> In this regard, China's pursuit of the hydrogen and neutron bombs played a greater role in sending a global message of the Middle Kingdom's achievements and showing the growing strength of the state to the Chinese people.

### *Deng Xiaoping*

Following Mao, Deng Xiaoping led China from 1978 till 1989 and is often called the "Architect of Modern China".<sup>33</sup> Deng believed that the road to China becoming the leading nation was to open up to the world. In a speech delivered in 1978, Deng laid out a vision for China's future after which the

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31. "The Chinese Government's Eight Principles for Economic Aid and Technical Assistance to other Countries", *Wilson Center Digital Archive*, January 15, 1964, at <https://digitalarchive.wilsoncenter.org/document/121560>, accessed on July 30, 2020.

32. Jeffrey Lewis, "Chinese views of nuclear weapons," *Adelphi Papers* 45, no. 446 (2014): 13-42.

33. Seth Faison, "Deng Xiaoping is Dead at 92; Architect of Modern China", *The New York Times*, February 20, 1997, at <https://www.nytimes.com/1997/02/20/world/deng-xiaoping-is-dead-at-92-architect-of-modern-china.html>, accessed on July 31, 2020.

country transitioned out of economic isolation.<sup>34</sup> Deng's reforms had long-lasting effects as they focused on transforming the Chinese economy to one being driven by the market. Special Economic Zones were established, beginning with Shenzhen, and by 1984, 14 cities had come under these zones.<sup>35</sup> Furthermore, during Deng's rule, China either joined or began the journey towards joining the major international organisations it once denounced as it could no longer afford to resist—"if China couldn't beat the West, it had to join the West."<sup>36</sup> It was also during this period of the Cold War where the United States saw China as a strategic partner against the Soviets and, alternatively, China began to view the North Atlantic Treaty Organization (NATO) as a balance against the Soviets. Deng also understood that the US was crucial for reconstructing China's economic power. Breakthroughs were made on the diplomatic front between President Richard Nixon and Deng Xiaoping that further enabled economic change in the form of opening up to American businesses, capital, and investments which helped recalibrate China's position and role on the international stage.<sup>37</sup>

Foreign policy under Deng was characterised by an independent and peaceful development strategy which revolved around preserving China's independence, sovereignty, and territorial integrity, along with creating a favourable international environment for economic reform and development.<sup>38</sup> Due to the backlash faced after the Tiananmen Square crackdown in 1989, Deng developed a 24-character foreign policy that can be translated as "observe calmly; secure our position; cope with affairs

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34. Deng Xiaoping, "Emancipate the Mind, Seek Truth from Facts and Unite as One in Looking to the Future", Speech, 3rd Plenary Session of the 11th Central Committee of the Communist Party of China, December 13, 1978.

35. Tom Fowdy, "Understanding the PRC: Part four—Deng Xiaoping, reform & opening-up," *China Global Television Network*, September 28, 2019, at <https://news.cgtn.com/news/2019-09-28/Understanding-the-PRC-Part-four-Deng-Xiaoping-reform-opening-up-Km22rFUUik/index.html>, accessed on August 3, 2020.

36. Schuman, n. 11, p. 303.

37. *Ibid.*

38. Teshu Singh, "Contemporary Foreign Policy of China: Legacy of Deng Xiaoping", *Institute of Peace and Conflict Studies*, September 10, 2014, at [http://www.ipcs.org/comm\\_select.php?articleNo=4653](http://www.ipcs.org/comm_select.php?articleNo=4653), accessed on August 3, 2020.



**Jiang continued with Deng's 24-character foreign policy and gradual economic reforms which included guiding China into the World Trade Organisation, which enhanced the country's international prestige.**

calmly; hide our capacities and bide our time; be good at maintaining a low profile; and never claim leadership."<sup>39</sup> He, therefore, downplayed China's capabilities and focused on developing China.

Under Deng, military modernisation was also carried out of the People's Liberation Army which has led to the Chinese military becoming one of the most advanced in the world. The key elements of these, as indicated by the American Directorate of Intelligence, were the depoliticisation, professionalisation, and cost-cutting of China's armed forces.<sup>40</sup> Firstly, Deng asserted civilian control over the military which involved establishing the State Central Military Commission in 1982. He also reduced the importance of ideology within its ranks and focused on stressing the military role of the People's Liberation Army rather than social, ideological, or economical. Secondly, efforts were made to upgrade equipment, training, and educational standards of the military. An important aspect of this was transforming the defence industry to become self-sufficient in the production of weapons and technologies. These developments and advances allowed China to become a net exporter of military equipment across the world. Lastly, the military's share of the budget was reduced along with its size (by 1 million men). These policies bolstered adjustments in China's strategic and foreign policies and have since supported the country's rise towards being a great power.

### *Jiang Zemin and Hu Jintao*

The next leader to take China forward and closer to reclaiming its lost glory was Jiang Zemin who led China from 1989 till 2002. Jiang ended

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39. Huang Youyi, "Context, not history, matters for Deng's famous phrase", *Global Times*, June 15, 2011, at <http://www.globaltimes.cn/content/661734.shtml>, accessed on August 4, 2020.

40. "China: Forging Ahead with Military Reform," Directorate of Intelligence, July 1986, at <https://www.cia.gov/library/readingroom/docs/CIA-RDP04T00794R000200770001-3.pdf>, accessed on August 4, 2020.

up handing over the reins of what would become the world's fastest-growing economy under him to Hu Jintao. Jiang continued with Deng's 24-character foreign policy and gradual economic reforms which included guiding China into the World Trade Organisation, which enhanced the country's international prestige. Jiang implemented the Three Represents which stated the CCP must always represent the development trend of China's advanced productive forces, the orientation of China's advanced culture, and the fundamental interests of the people.<sup>41</sup> It was also during Jiang's tenure when the American-led NATO coalition bombed the Chinese embassy in Belgrade during the 1999 war in Yugoslavia that killed three Chinese citizens. Although accidental, the incident triggered outrage and anti-foreign sentiments in China where it was viewed as another humiliation imposed by foreign powers. The incident led to increased militarisation of the country as China believed the United States could act unilaterally through NATO and potentially apply similar interventions closer to China's borders.<sup>42</sup> It could also be argued that the bombing accelerated China's endeavours to become an economic force to gain international respect, with Jiang making most of the situation which included upgrading ties with Moscow.<sup>43</sup>

**Hu Jintao, China's paramount leader from 2002 till 2012, brought China to a global stage in a more overt fashion through the 2008 Olympics and the 2010 World Expo in Shanghai. Although often credited to Xi Jinping, the formal shift away from Deng's guidelines on keeping your head down began under Hu.**

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41. Raviprasad Narayanan, "The Politics of Reform in China: Deng, Jiang and Hu," *Strategic Analysis* 30, no. 2 (2006): 329-53.

42. Leonardo Dinic, "We Remember 1999 Very Well—The NATO Bombing of Yugoslavia and Its Impacts on Sino-Russian Relations", *China US Focus*, September 13, 2019, at <https://www.chinausfocus.com/peace-security/we-remember-1999-very-well--the-nato-bombing-of-the-federal-republic-of-yugoslavia-and-its-impacts-on-sino-russian->, accessed on August 5, 2020.

43. Katsuji Nakazawa, "19 years from embassy bombing, China's anti-Americanism lives on", *Nikkei Asian Review*, August 2, 2018, at <https://asia.nikkei.com/Editor-s-Picks/China-up-close/19-years-from-embassy-bombing-China-s-anti-Americanism-lives-on>, accessed on August 5, 2020.

Hu Jintao, China's paramount leader from 2002 till 2012, brought China to a global stage in a more overt fashion through the 2008 Olympics and the 2010 World Expo in Shanghai. Although often credited to Xi Jinping, the formal shift away from Deng's guidelines on keeping your head down began under Hu who substantially revised Chinese grand strategy.<sup>44</sup> China's leaders from Deng Xiaoping onwards believed adherence to Deng's 24-character foreign policy was purely based on the international balance of power. Due to the shift caused by the 2008 financial crisis, the notion of keeping a low profile and biding your time was modified to capitalise on the situation with Hu stressing that China now needed to "actively achieve something".<sup>45</sup> The Olympics were a watershed moment in this aspect where China's international prestige rose and it succeeded in showing the world it was no longer a poor and weak country, but one that was globally integrated and could hold its own on the international stage. This also reflected amongst its leaders who believed that the country's political system was the best in the world, and instead of China being a follower, the world should now follow China.<sup>46</sup> Having strategically bid for the 2008 Olympics in 1998, such an event would become a catalyst for growth and development by attracting public investment, upgrading infrastructure and overall increasing the quality of life in the capital of Beijing. The Shanghai Expo in 2010 played a similar role in accelerating Shanghai's transformation as a modern global city and reinforced China's image as a major global player. On the foreign policy front, China under Hu became more powerful, and a crucial player on the global stage. It was also under his leadership that Chinese outreach to Africa, West Asia, and Latin America expanded, which today has been further boosted through the BRI. It is also important to note that China's GDP grew by more than 8 per cent every year during Hu's tenure. He also succeeded

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44. Rush Doshi, "Hu's to blame for China's foreign assertiveness", *Brookings*, January 22, 2019, <https://www.brookings.edu/articles/hu-to-blame-for-chinas-foreign-assertiveness/>, accessed on August 6, 2020.

45. *Ibid.*

46. Fang Wan, "How China changed after 2008 Beijing Olympics", *DW*, August 8, 2018, at <https://www.dw.com/en/how-china-changed-after-2008-beijing-olympics/a-44986744>, accessed on August 6, 2020.

in bringing millions out of poverty, and successfully established China as an economic heavyweight.<sup>47</sup> Hu Jintao is also accredited with his “going out” policy which amongst others, established port projects in Pakistan, Sri Lanka, Myanmar, and Malaysia. Although these now come under the BRI, Hu also formulated the idea of using infrastructure to bind China to its neighbours in a 2009 address.

China’s leaders from Mao have thus played vital but different roles in reclaiming the country’s lost glory. From the principles they have followed to ambitious projects, the paramount leaders have succeeded in showcasing to the world that China is no longer a poor and weak country, and commands the prestige and respect of old. Not only was China’s economy strengthened and accelerated, but the nation’s security was enhanced making sure history would not repeat itself and never again would the Middle Kingdom bow down to, or be the subject of, foreign pressures.

### **RISE UNDER XI JINPING**

China’s current Paramount Leader, Xi Jinping is arguably the most powerful Chinese leader since Mao. Under Xi, China is using its growing global economic activity to strengthen national competitiveness, along with building international leverage.<sup>48</sup> Ascending to power during the 18th Party Congress in 2012, China’s two centenary goals were also put down in writing during this Congress. Xi has linked these aims, coalescing them into his ‘Chinese Dream’ and the ‘great rejuvenation of the Chinese nation’ which were laid out in his address to the 19th National Congress of the CCP. Xi’s China Dream has four parts: “Strong China (economically, politically, diplomatically, scientifically, militarily); Civilised China (equity and fairness, rich culture, high morals); Harmonious China (amity among social classes); Beautiful China (healthy environment, low

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47. Matt Schiavenza, “Was Hu Jintao a Failure?”, *The Atlantic*, March 13, 2013, at <https://www.theatlantic.com/china/archive/2013/03/was-hu-jintao-a-failure/273868/>, accessed on August 6, 2020.

48. Tom Miller, *China’s Asian Dream: Empire Building along the New Silk Road* (London: Zed Books, 2017), p. xi.

pollution).<sup>49</sup> The importance of the centenary goals are also revealed in Xi Jinping mentioning them more than a hundred times in public speeches and articles, attributing great importance to this idea, and steering China towards realising them.<sup>50</sup> Originally a part of Jiang Zemin's 1997 15th Party Congress Work Report, and also informally appearing in documents before 1997, the rejuvenation of China by 2049 is not a new concept. It highlights the long game that China and its leaders have been adopting to systematically reach their goal by the centenary anniversary of the People's Republic. China's leadership since 2012 has promised the Chinese people they will return to the grandeur of past dynasties in the era before the century of humiliation.<sup>51</sup> In the pursuit of doing so, Xi's China has favoured a strategy of bold initiatives aimed at reshaping the global world order. Graham Allison believes there is a fourfold vision in Xi's plans for "making China great again".<sup>52</sup> This includes returning to the predominance China's dynasties enjoyed, re-establishing control over "greater China", which includes Xinjiang, Tibet, Hong Kong, and Taiwan, recovering its historic sphere of influence, and commanding the respect of other great powers. To realise this dream, Xi is not only continuing many initiatives of his predecessors but has accelerated and emboldened many of the policies followed, especially those revolving around military reforms and foreign policy.

In the same speech where Xi laid out his China dream, he stated that an important aspect of realising the dream is to build a powerful military. This involves developing a new strategy and carrying out modernisation efforts of the armed forces, which would be completed by 2035. Through these, the Chinese Ministry of Defence stated they would strive to "focus on solving

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49. Robert Lawrence Kuhn, "Xi Jinping's Chinese Dream", *The New York Times*, June 4, 2013, at <https://www.nytimes.com/2013/06/05/opinion/global/xi-jinpings-chinese-dream.html>, accessed on July 16, 2020.

50. Yang Danzhi, "Two Centenary Goals", in Cai Fang and Peter Nolan (eds.), *Routledge Handbook of the Belt and Road* (Oxford: Routledge, 2019), pp. 216-19.

51. Matthias von Hein, "Xi Jinping and the 'Chinese Dream'", *DW*, May 7, 2018, at <https://www.dw.com/en/xi-jinping-and-the-chinese-dream/a-43685630>, accessed on August 7, 2020.

52. Graham Allison, "What Xi Jinping Wants", *The Atlantic*, May 31, 2017, at <https://www.theatlantic.com/international/archive/2017/05/what-china-wants/528561/>, accessed on July 28, 2020.

the institutional obstacles, structural contradictions and policy problems that restrict the development of national defence” which will “build a solid national defense” to “provide a strong guarantee ... for the realization of the Chinese dream of the great rejuvenation of the Chinese nation.”<sup>53</sup> The PLA reforms are also politically motivated with the immediate goal being to enhance Xi’s authority to control the PLA, which would allow him to take operational command even in peacetime.<sup>54</sup> Initiated through a Five-Year Plan for the PLA in 2015, the reforms include the creation of joint theatre commands, personnel cuts, and enhancing civil-military collaboration. Xi is also transforming the PLA from a largely territorial force to a major maritime power.<sup>55</sup> In 2016, China replaced the seven Military Regions system with five new Theatre Commands: North, South, East, West, and Central, each responsible for a geographic region and free of administrative roles. The commands were given operational wartime responsibilities to improve joint operations capabilities.<sup>56</sup> Xi also declared the PLA would reduce its numbers by 300,000 soldiers. The reductions would take place amongst the land forces and in line with the 2015 Defence White Paper which stated the PLA abandon its traditional land-centric mentality.<sup>57</sup> China also announced the creation of three new forces: the Second Artillery Corps renamed as the Rocket Force, the Strategic Support Force (SSF) which would collaborate between space, cyber, and electronic warfare, and the Joint Logistics Support Force to provide strategic and operational logistics support. In 2017, a further

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53. “The Central Military Commission issued opinions on deepening the reform of national defense and the armed forces”, *Ministry of National Defense of the People’s Republic of China*, January 1, 2016, at [http://www.mod.gov.cn/auth/2016-01/01/content\\_4635557.htm](http://www.mod.gov.cn/auth/2016-01/01/content_4635557.htm), accessed on January 23, 2021.

54. You Ji, “Xi Jinping and PLA Transformation Through Reforms,” *RSIS Working Paper* no. 313 (2018).

55. Lindsay Maizland, “China’s Modernizing Military”, Council on Foreign Relations, February 5, 2020, at <https://www.cfr.org/backgrounder/chinas-modernizing-military>, accessed on August 10, 2020.

56. Suyash Desai and Manoj Kewalramani, “Securing China: An Assessment of Xi’s Military Reforms”, Takshashila Discussion Slidedoc, 2020-01, at <https://takshashila.org.in/wp-content/uploads/2020/03/TDS-SecuringChinaAnAssessmentofXisMilitaryReforms-SD-MK-2020-01.pdf>, accessed on August 7, 2020.

57. “China’s Military Strategy”, *The State Council*, May 27, 2015, at [http://english.www.gov.cn/archive/white\\_paper/2015/05/27/content\\_281475115610833.htm](http://english.www.gov.cn/archive/white_paper/2015/05/27/content_281475115610833.htm), accessed on August 10, 2020.

**Xi has also been carrying out a more assertive foreign policy narrative and leveraging China's diplomatic and military strengths to further claims in the East China Sea, the South China Sea, and on the Western front with its border with India.**

reduction of the army was announced with the PLA Navy (PLAN), Rocket Force, and the SSF seeing an increase in personnel.<sup>58</sup> Furthermore, each service went through internal restructuring to enhance its mobility and combat effectiveness. This also included the PLA's internal functions being delegated to the People's Armed Police (PAP), allowing the PLA to focus on external threats and challenges. Amongst the armed forces, the PLAN and PLA Air Force (PLAAF) have benefited the most. The PLAN has been developing larger vessels like aircraft carriers and destroyers, while also modernising its submarine force. The PLAAF is also on its way to becoming a "strategic air force" by developing long-range and stealth capabilities.<sup>59</sup> Together, these sweeping reforms will ensure that the PLA becomes a world-class force by 2049 and also help further China's national security objectives and extend its operational range. Apart from the reforms, China has been consistently increasing its defence spending with an enormous estimated budget of US\$ 181.1 billion in 2019, behind only the United States and almost three times India's budget.<sup>60</sup>

During the 19th Communist Party Congress in Beijing, President Xi announced that it was time for China to "take centre stage in the world and to make a greater contribution to humankind."<sup>61</sup> This has been the cornerstone of Beijing's foreign policy under Xi who expanded China's diplomatic outreach and roughly doubled its foreign affairs budget between 2011 and 2018 to play

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58. Yang Sheng, "Reform to downsize PLA Army, boost navy number", *Global Times*, July 11, 2017, at <http://www.globaltimes.cn/content/1055927.shtml>, accessed on August 10, 2020.

59. Desai and Kewalramani, n. 56.

60. IISS, "Global defence spending: The United States widens the gap", *Military Balance Blog*, February 14, 2020, at <https://www.iiss.org/blogs/military-balance/2020/02/global-defence-spending>, accessed on August 11, 2020.

61. Charles Clover and Sherry Fei Ju, "China's diplomacy budget doubles under Xi Jinping", *Financial Times*, March 6, 2018, at <https://www.ft.com/content/2c750f94-2123-11e8-a895-1ba1f72c2c11>, accessed on August 11, 2020.

a more important role in global affairs.<sup>62</sup> Subsequently, Xi has also been carrying out a more assertive foreign policy narrative and leveraging China's diplomatic and military strengths to further claims in the East China Sea, the South China Sea, and on the Western front with its border with India. Territorial disputes with Japan have been exacerbated after the announcement of an Air Defence Identification Zone, and constant incursions and the pressing of China's nine-dash line claims have continued to keep tensions high in the South China Sea. Xi has thus been following an emboldened maritime policy and increasingly asserting its supremacy in the domain, which includes blatantly disregarding international law in the form of the Permanent Court of Arbitration's ruling for violating the United Nations Convention on the Law of the Sea (UNCLOS) vis-à-vis the Philippines in the SCS. Stances against Hong Kong and Taiwan have also become more aggressive with the former being subjected to the Hong Kong security law which came into effect on June 30, 2020, and will increase Beijing's control and ability to shape life in Hong Kong.<sup>63</sup> On Taiwan, Xi has stated that the island "must be unified, will be unified", while adding Beijing would take the "necessary measures" against foreign interference in the region.<sup>64</sup> Using the instability of the Trump administration to his advantage, Xi has worked towards challenging the American financial and security order and building closer ties with Europe and Russia. Closer to home, Beijing has begun to overlook the decades-old CCP policy of non-interference in the

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62. Ibid.

63. "Hong Kong security law: What is it and is it worrying?", *BBC*, June 30, 2020, at <https://www.bbc.com/news/world-asia-china-52765838>, accessed on August 12, 2020.

64. Yuan Yang and Edward White, "Xi Jinping asserts that Taiwan and China 'will be unified'", *Financial Times*, January 2, 2019, at <https://www.ft.com/content/fcabb7e8-0e45-11e9-a3aa-118c761d2745>, accessed on August 12, 2020.



affairs of other states.<sup>65</sup> Beijing has also been exploiting events, i.e., the MH 370 plane crash tragedy, to increase its sphere of intervention in the Indian Ocean through its naval intelligence service and the PLA's combat fleet.<sup>66</sup> To increase China's global reach and economic footprint, Xi has established new institutions and increased the capabilities of others which include the Asian Infrastructure Investment Bank (AIIB), the China Exim Bank, and the US\$ 40 billion Silk Road Fund in order to challenge the traditional Western institutions by creating Chinese-led parallel institutions. The BRI, similarly, plays an imperative dual role of spreading China's economic reach across the world, while also creating new global supply chains and routes to ensure the uninterrupted flow of energy supplies and resources, thereby safeguarding China's growing global stature and preventing domination by foreign powers.

Xi has, therefore, been attempting to coordinate China's diplomatic, security, and economic capabilities to a greater extent and to leverage them in every way possible to achieve his 'China Dream' and put China back on track in terms of its historical progression.<sup>67</sup> The 2014 PLA strategic guidelines have highlighted this, emphasising a shift to protecting Beijing's developmental interests by using military resources along with political and economic ones to create a favourable environment for China's development.<sup>68</sup> According to Robert Blackwill and Kurt Campbell, the uniqueness of Xi's foreign policy lies in his willingness to use every instrument of statecraft to pursue geopolitical objectives. Although China using these instruments is not new, there is a greater willingness under Xi to use them in a more "assertive, nuanced, and diversified manner" to ensure China is taken seriously abroad.<sup>69</sup> Michael

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65. Richard McGregor, "Xi Jinping's Moment", *Lowy Institute*, October 6, 2017, at <https://www.lowyinstitute.org/publications/xi-jinping-moment>, accessed on August 12, 2020.

66. Roger Faligot, *Chinese Spies: From Chairman Mao to Xi Jinping* (London: C. Hurst & Co., 2019), p. 399.

67. Elizabeth C. Economy and Michael Levi, *By All Means Necessary* (New York: Oxford University Press, 2014).

68. M. Taylor Fravel, *Active Defense: China's Military Strategy since 1949* (Princeton: Princeton University Press, 2019).

69. Robert D. Blackwill and Kurt M. Campbell, "Xi Jinping on the Global Stage: Chinese Foreign Policy Under a Powerful but Exposed Leader", Council on Foreign Relations, Special Report No. 74, February 2016, at [https://cdn.cfr.org/sites/default/files/pdf/2016/02/CSR74\\_Blackwill\\_Campbell\\_Xi\\_Jinping.pdf](https://cdn.cfr.org/sites/default/files/pdf/2016/02/CSR74_Blackwill_Campbell_Xi_Jinping.pdf), accessed on August 13, 2020.

Schuman has stated the current Chinese regime is increasingly imitating the nation's civilisational dynasties in ways that "directly influence its view of the world and actions on the global stage."<sup>70</sup> Additionally, Avery Goldstein has encapsulated Xi's strategy for national rejuvenation as a combination of three pillars: reassuring other countries that China's rise is benign as it seeks to nurture confidence in other nations, pressing for reform of the international system that better reflects the current world, and most importantly, using China's growing power as a bulwark against challenges to the CCP's core interests.<sup>71</sup>

While there is no doubt Xi Jinping's leadership has been instrumental in China's diplomatic outreach and assertiveness on the world stage, changes in the geopolitical environment have also aided the pace of China's rise. Various actions and inactions by numerous countries have allowed China to increase its global presence. The most important of these is the United States under President Donald Trump and the country's faltering perception as a responsible Superpower. This has resulted in a decline in its global standing along with a loss of confidence from American allies amongst others. Over the course of his presidency, Trump has withdrawn the US from numerous international bodies and agreements including the Trans-Pacific Partnership, the Paris Climate Agreement, the Iran Nuclear Deal, and the United Nations Human Rights Council, amongst others. He has also threatened to withdraw from the World Trade Organisation. Furthermore, President Trump has weakened NATO by declining to affirm the American commitment to NATO's Article 5 on collective defence, whereby an attack against one ally is considered an attack against all. Being the core of NATO's founding treaty, Trump has undermined the entire credibility of the organisation. Additionally, he has terminated the US relationship with the World Health Organisation over its alleged relationship with China amidst the COVID-19 pandemic. COVID-19 has worsened this situation as China has successfully contained the pandemic and engaged in health diplomacy compared to the

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70. Schuman, n. 11, p. 19.

71. Avery Goldstein, "China's Grand Strategy under Xi Jinping: Reassurance, Reform, and Resistance", *International Security* 45, no. 1 (Summer 2020): 164-201.

**For Beijing, its foreign policies, military modernisations, and geopolitical ambitions are not only to prevent the déjà vu regarding the 19th and early 20th centuries, but also to return the Middle Kingdom to the centre of the world.**

Trump administration's botched response. On the other hand, New Delhi's inaction in South Asia has led to an increasing Chinese foothold in the region. The lack of proactiveness from middle powers such as India towards its smaller neighbours has enabled China to fill the existing development vacuum. This is especially pertinent for smaller developing nations which require a consistent ally to aid them in their progress. These countries are often victims to changes in leadership leading to significant policy changes and thus require partners who are consistent in their approach. A consistent one-party ruled China, therefore, is an attractive development partner as leadership changes even in middle or large powers can result in inconsistent foreign policy approaches. However, while this may have seemed like an attractive solution to pursue national development, and India's neighbours readily signed on to the BRI, they are now facing the realities and the political, economic, and security implications of a growing dependence on China. This has led to many countries, both in South Asia and across the globe, to increasingly re-evaluate their engagements with Beijing.

### **IMPORTANCE OF HISTORY**

The above sections have briefly elucidated the different periods of Chinese history from the century of humiliation and traced the country's route from the establishment of the PRC in 1949 to the current era. This helps us shed light on how we have reached the current geopolitical scenario and the underlying facets that drive Chinese policymaking and grand strategy. China, throughout its history, has always seen itself as a Superpower and has never been comfortable playing second fiddle, always setting the terms of engagement rather than the opposite. The assertive nationalism in Chinese foreign policy is thus rooted in the possibility of history repeating itself and, to prevent that, the nation has had to raise its guard and become powerful

enough against potential adversaries.<sup>72</sup> For Beijing, its foreign policies, military modernisations, and geopolitical ambitions are not only to prevent the déjà vu regarding the 19th and early 20th centuries, but also to return the Middle Kingdom to the centre of the world.

The century of humiliation thus plays an important role in contemporary Chinese thought as it presents a view of how the world works and is used by the Chinese to interpret international relations. The mention of it in the 2011 white paper on 'China's Peaceful Development' states,

In the mid-19th century, Western powers forced open China's door with gunboats. Internal turmoil and foreign aggression gradually turned China into a semi-colonial and semi-feudal society. The country became poor and weak, and the people suffered from wars and chaos.<sup>73</sup>

This reflects the complex developed by China, the significance of that period of history, and the importance of understanding the century of humiliation in analysing contemporary Chinese foreign policy. China's thought draws parallels with the realist theory of International Relations where the international system is anarchic and states which are rational actors can never be certain about the intentions of other nations. This leads to an increased interest in survival where, to do so, states seek prestige, security, power, and autonomy.

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72. Allen S. Whiting, "Assertive Nationalism in Chinese Foreign Policy", *Asian Survey* 23, no. 8 (1983): 913-33.

73. "China's Peaceful Development", White Paper, The State Council, The People's Republic of China, September 6, 2011, at [http://english.www.gov.cn/archive/white\\_paper/2014/09/09/content\\_281474986284646.htm](http://english.www.gov.cn/archive/white_paper/2014/09/09/content_281474986284646.htm), accessed on September 24, 2020.

By studying the past, we can, therefore, find the origins of Chinese present thought and increase our perspicacity on its implications for India and the way forward for New Delhi. It is clear that China views the 21st century through a historical lens and “judges the events of the present and the challenges it faces by those of the nineteenth and twentieth centuries.”<sup>74</sup> While the century of humiliation shows us one angle of China’s history and its prevalence today, history also sheds light on the numerous Chinese dynasties that were not averse to resorting to force and coercion when challenged. Drawing from the past, therefore, there is nothing to suggest that the PRC will not use tactics of old when challenged in the upcoming decades and “restore aspects of the old imperial order as their power expands.”<sup>75</sup> M. Taylor Fravel has subsequently stated that “understanding China’s past and present approaches to strategy provides a crucial baseline for assessing future changes.”<sup>76</sup>

While this paper analyses China’s rise, the events and decisions taken by its leaders to make the Middle Kingdom ‘great again’, and helps us understand why the China factor plays out in the way it does in the present day, it is important to note at what cost this comes for the people of China and its global implications. Internally, apart from being a society that is closely monitored and regulated, dissent has been heavily put down as was seen during the Tiananmen Square incident in 1989. China’s actions and policies have further led to the repression of Uighur Muslims in Xinjiang under the guise of preventing terrorism and separatism, along with the recent Hong Kong security law that increases Beijing’s control over Hong Kong. In both situations, the government has come down hard on those protesting and has sought to curb opposition and debate to its policies. China’s actions to realise its ambitions, and the way they are conducting themselves also has global implications. An assertive foreign policy has led to using the country’s economic prowess as a bargaining factor. Economic threats are increasingly

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74. Robert Bickers, *Out of China: How the Chinese Ended the Era of Western Domination* (Cambridge: Harvard University Press, 2017), p. 397.

75. Michael Schuman, “What Happens When China Leads the World”, *The Atlantic*, October 5, 2020, at <https://www.theatlantic.com/international/archive/2020/10/what-kind-superpower-will-china-be/616580/>, accessed on October 8, 2020.

76. Fravel, n. 68, p. 3.

common with Australia currently being on the receiving end. Additionally, smaller nations across the globe find it difficult to reject Beijing's overtures and are realising the heavy cost of development in terms of increasing debt to China. Alternatively, China's policies have also affected global security as it has emboldened nations like Pakistan, and others led by authoritarian regimes, to continue their nefarious activities and legitimise their rule. In numerous situations, China has shielded such governments at international organisations to further their own objectives. On the costs that arise out of achieving the China Dream, Bill Hayton has summed up that the "desire for homogeneity at home and respect abroad has resulted in suppression at home and threats abroad" in Xi Jinping's China.<sup>77</sup> Additionally, China's actions, militarisation, and assertive foreign policy should not be taken as a justification stemming from the way China was treated during its century of humiliation. In this light, Sebastian Strangio has stated that, "Even as it regains its former power and wealth, China's behaviour remains wrapped in the mythology of its victimization by imperial powers, past and present."<sup>78</sup>

In terms of accomplishing the China Dream, while it is still far from becoming a reality, the methods and approaches taken by the CCP, as has been seen through this paper, are in stark contradiction to a nation that views itself as the centre of the world and is striving to become a Superpower. China's aggressive foreign policy, therefore, cannot be justified as historically the Middle Kingdom was not the sole civilisation to have suffered at the hands of 'foreigners'. Beijing's actions, exhibited on both the domestic and international stage, have not only increasingly highlighted the flaws of Xi Jinping's regime, but also underscore the extent to which the CCP will go, regardless of global considerations and international law, towards achieving its aspirations.

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77. Bill Hayton, *The Invention of China* (New Haven: Yale University Press, 2020), p. 249.

78. Sebastian Strangio, *In the Dragon's Shadow: Southeast Asia in the Chinese Century* (New Haven: Yale University Press, 2020), p. 313.

# UNDERSTANDING THE DEVELOPMENT AND FUTURE OF NUCLEAR ENERGY IN CHINA

ZOYA AKHTER FATHIMA

## INTRODUCTION

The Fukushima accident in 2011 altered the course of global nuclear development. After the accident, there was a huge public outcry on nuclear safety, which compelled governments to reconsider their national nuclear ambitions. However, while many countries either stopped, stalled or re-examined their civil nuclear aspirations, China continued to ramp up its civil nuclear capabilities. According to the International Energy Agency (IAEA), China has the biggest installed power capacity since 2012. In fact, its growth trajectory since then contributes to almost a quarter of the global nuclear capacity, having reached 2011 GWe in 2019.<sup>1</sup> For a country whose civil nuclear programme only really advanced in the previous decade, China has come a long way in a short span of time and has more ambitious plans in the offing. In 2000, China had only three commercial nuclear reactors. Today, it has 45 reactors with 12 more under construction.<sup>2</sup> China's nuclear ambitions go

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1. "Nuclear Power in China", World Nuclear.org, at <https://www.world-nuclear.org/information-library/country-profiles/countries-a-f/china-nuclear-power.aspx>, accessed on May 3, 2020.
2. George David Banks, "The Rise of China's Civil Nuclear Program and Its Impact on U.S. National Interests", ACCF Center for Policy Research, January 2017, at [http://accf.org/wp-content/uploads/2017/03/ACCF\\_China\\_paper\\_03.pdf](http://accf.org/wp-content/uploads/2017/03/ACCF_China_paper_03.pdf), accessed on May 7, 2020.

**For a country whose civil nuclear programme only really advanced in the previous decade, China has come a long way in a short span of time and has more ambitious plans in the offing. In 2000, China had only three commercial nuclear reactors. Today, it has 45 reactors with 12 more under construction.**

beyond just powering its own development as it is also focusing on exporting nuclear power technology to other countries through its Belt and Road Initiative (BRI).

In this context, the paper aims to study the growth of China's civil nuclear programme, foresee its future trajectory and assess the possible challenges in this course. It also aims to understand the implications of its civil nuclear projects on its foreign policy and tries to examine the consequences therein, especially in the context of the Belt and Road Initiative. The paper is divided into three parts. The first part examines the history and development of civil

nuclear programme in China. It assesses the rationale behind China's decision to develop its civil nuclear programme and the factors that are motivating it to press on. The second part analyses the effect Fukushima had on China's civil nuclear industry and the policy responses to it. The third part examines China's ambitions with regard to its nuclear energy policies to assess its future trajectory, while also addressing the challenges that China faces in this regard.

## **HISTORY AND DEVELOPMENT OF CHINA'S CIVIL NUCLEAR ENERGY PROGRAMME**

The market systems reform in China in the late 1970s was a key factor in transforming the country. Ending centuries of isolation, the economy opened up to pave the way for rapid economic development. As economic growth was contingent on ample access to electricity, the focus was to establish reliable power sources. As the country embarked on rapid industrial development in the 1980s, electricity demand in China increased at a monthly rate of 15 per cent.<sup>3</sup> To meet these demands, China rapidly built thermal power

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3. Manpreet Sethi, "China's Nuclear Energy Scenario: Three Years after Fukushima", *Defence and Diplomacy Journal*, vol. 3, no. 4, 2014 (July-September), at <http://capsindia.org/files/documents/Defence-Diplomacy-Jul-Sep-2014-inside.pdf>, p. 77.



plants which provided electricity at low cost. However, this too led to several challenges. First, there emerged a problem of import dependency as the domestic coal reserves fell short of rising energy demands. Second, it also led to increasing CO<sub>2</sub> emissions, which not only impacted public health but also had serious economic repercussions. Considering the gravity of these challenges, China in the 1990s shifted its focus to explore cleaner and more reliable sources of energy. Thus, nuclear energy gained prominence along with other renewable forms of energy such as wind and solar power.

**The first reactor came into commercial operation in 1994, after which plans were devised to build four more nuclear power plants. The idea was to have “moderate development of nuclear power” so that they could build technical expertise while limiting capital requirements.**

While nuclear energy in China developed only by the end of the last century, plans to develop nuclear power for electricity generation date back to the 1950s. A reference to it can be found in the First Five-Year Plan of 1953. But, this did not gain momentum until the Chinese city of Shanghai witnessed a severe power supply crisis in the 1970s, which brought nuclear power back to the discussion table. However, it remained there owing to bureaucratic scuffles between different agencies. It was only in 1978 that China officially declared its plan to develop a civil nuclear programme.

As the country embarked on a civil nuclear programme, it decided to begin by developing Pressurised Water Reactors through both foreign collaboration as well as development of indigenous ones.<sup>4</sup> The first reactor came into commercial operation in 1994, after which plans were devised to build four more nuclear power plants. The idea was to have “moderate development of nuclear power” so that they could build technical expertise while limiting capital requirements. China built four plants with designs

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4. Philip Andrews-Speed and Sufang Zhang, *China as a Global Clean Energy Champion: Lifting the Veil* (Springer, January 2019), p. 111.

adopted from the USA, Canada, Russia and France, which helped them to test different designs and avert any common design problems.<sup>5</sup>

In the beginning of the new millennium, growing awareness of climate change led to elevating importance of clean energy sources in China's energy policies. In this regard, the 11th National Five-Year Plan (2006-2010) of China acknowledged the importance of clean energy generation by not only mandating the shutting down of old coal-fired power plants but also shifting its focus to cleaner forms of energy with lower carbon footprints.<sup>6</sup> Having virtually no carbon footprint, nuclear energy began to grow in prominence. This trend was reflected in China's *Medium to Long Term Plan for Nuclear Energy Development 2005-2020*, which envisioned achieving 45 GW in operation by the year 2020. China has been able to come very close to achieving this goal, currently having the capacity of 42.8 GW (as of March 2019).<sup>7</sup> This goal, however, has seen modifications over the years, most recently having envisioned 58 GW capacity by 2020, in addition to having 30 GW under construction. This was outlined in the *Energy Development Strategy Action Plan 2014-2020*.<sup>8</sup> In the last two decades, China has been able to develop its civil nuclear programme at an expeditious pace. Today, China has 45 operational nuclear power reactors and 12 more under construction, in addition to several others being planned.<sup>9</sup> China has also developed its own indigenous design for a Pressurised Water Reactor, in addition to expanding uranium exploration and has achieved full fuel cycle capability.<sup>10</sup>

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5. Philip Andrews-Speed, "The Governance of Nuclear Power in China", *The Journal of World Energy Law & Business*, vol. 13, issue. 1, March 2020, pp. 23-46, at <https://doi.org/10.1093/jwelb/jwaa004>, accessed on May 15, 2020.

6. Manpreet Sethi, n. 3, p. 77.

7. "World Nuclear Power Reactors & Uranium Requirements", *World Nuclear Organisation*, May 2020, at <https://www.world-nuclear.org/information-library/facts-and-figures/world-nuclear-power-reactors-and-uranium-requireme.aspx>, accessed on May 10, 2020.

8. "Nuclear Power in China", n. 1.

9. Ibid.

10. Manpreet Sethi, n. 3, p. 86.

## **RATIONALE FOR DEVELOPING A CIVIL NUCLEAR PROGRAMME (1970s-PRESENT)**

Several reasons led Beijing to develop its civil nuclear programme and focus on advancing it over the years:

### *To Mitigate Environmental and Public Health Concerns*

China's rapid industrialisation led to high demand for power. To fuel its development, China's dependence on fossil fuels grew significantly. By 1990, the total energy consumption rate of coal in China grew to 76.2 per cent, as it became one of the world's largest producers and consumers of coal.<sup>11</sup> Initially, as the focus was solely on industrialisation and economic development, China did not pay much heed to environmental concerns. Instead, it viewed international concerns about its CO<sub>2</sub> emissions as a ploy by developed countries to hinder the progress of developing countries. However, by the beginning of the century, the effects of climate change became apparent, not only globally but also in China. The effects of increasing greenhouse gas emissions on Chinese public health and environment was dire. Having the largest carbon footprint amongst other sources of power, coal inevitably results in large death prints as well.<sup>12</sup> The excessive use of fossil fuels contributes significantly to air pollution. A study undertaken by the physicists at the University of California, Berkeley, revealed that around 1.6 million people die annually (which amounts to roughly 4,000 people every day) in China due to the deleterious impact of air pollution. The study attributes this problem to the extensive burning of coal.<sup>13</sup> This has economic repercussions as well, as it leads to loss of productivity and high amount of healthcare cost, among others. In fact, the World Bank estimates that the economic loss to China caused by air pollution is about 6.5 per cent

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11. "China Coal Consumption Cap Plan and Research Report: Recommendations for the 13th Five-Year Plan", *China Coal Cap Project*, October 2015, at [https://d2ouvy59p0dg6k.cloudfront.net/downloads/china\\_coal\\_consumption\\_cap\\_plan\\_and\\_research\\_report\\_\\_recommendations\\_for\\_the\\_13fyp.pdf](https://d2ouvy59p0dg6k.cloudfront.net/downloads/china_coal_consumption_cap_plan_and_research_report__recommendations_for_the_13fyp.pdf), accessed on June 10, 2020.

12. 'Deathprints' refers to the number of deaths caused by a certain kind of energy technology.

13. "Air pollution in China is killing 4,000 people every day, a new study finds", *The Guardian*, August 14, 2015, at <https://www.theguardian.com/world/2015/aug/14/air-pollution-in-china-is-killing-4000-people-every-day-a-new-study-finds>, accessed on May 21, 2020.

of its GDP.<sup>14</sup> Currently, China is the largest emitter of greenhouse gases in the world. Thus, as the problem of air pollution worsened, it became a strong impetus for the development of nuclear power in China. Having one of the smallest carbon footprints of just 15g of CO<sub>2</sub> emitted per kWh, in comparison to coal, which releases 900g of CO<sub>2</sub> per kWh, nuclear energy has appealed to Chinese technocrats and policymakers.<sup>15</sup> In addition, it is an important source to achieve the goals set by the Paris Agreement, which is an environmental accord that was adopted by 197 countries, to collectively combat global warming. The Paris Agreement set a target to ensure that global temperature rise should be controlled to below 2 degrees Celsius until the end of the century, while limiting the increase to less than 1.5 degrees Celsius. Numerous specialists around the world have explored ways to achieve this target. One important study which assessed the role of nuclear power in achieving this target in China, based on simulations, carbon emission funds and other factors, revealed that major changes would be required in China's energy policies and existing trends to achieve this. In pursuit of making these changes to energy policies, the study stated that nuclear power has high level expectations.<sup>16</sup>

### *To Fuel Economic Development*

Since the opening of its economy, China has evolved from an agrarian economy to a global economic superpower in a matter of a few decades. China's economic development has resulted in a burgeoning consumption of energy. Along with the rise of its annual per capita GDP, the rate of energy consumption has also increased proportionately. For example, China's rise of annual per capita GDP was about US\$ 100 in 1980 and increased to a whopping

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14. Costs of Selected Policies to Address Air Pollution in China", *Rand Corporation*, at [https://www.rand.org/content/dam/rand/pubs/research\\_reports/RR800/RR861/RAND\\_RR861.pdf](https://www.rand.org/content/dam/rand/pubs/research_reports/RR800/RR861/RAND_RR861.pdf), p. ix. Accessed on June 12, 2020.
  15. James Conca, "How Deadly Is Your Kilowatt? We Rank the Killer Energy Sources", *Forbes*, June 10, 2012, at <https://www.forbes.com/sites/jamesconca/2012/06/10/energys-deathprint-a-price-always-paid/#33ab4771709b>, accessed on June 3, 2020.
  16. Xin-Jian Xiao and Ke-Jun Jiang, "China's nuclear power under the global 1.5°C target: Preliminary feasibility study and prospects", *Advances in Climate Change Research*, vol. 9, issue 2, June 2018, p. 138.

US\$ 7,000 in 2017. Correspondingly, the per capita energy consumption in the same time period also increased from 600 kg to 2,000 kg (of oil equivalent).<sup>17</sup> By extension, this has had a proportional increase in the electricity sector as well. For example, in 1990 China's electric power consumption rate was just about 1/5th that of the United States'. By 2013, China had become the world's largest consumer of electricity, with its energy use growing by 8.4 per cent in 2007, in comparison to the overall global electricity growth rate of 2.4 per cent.<sup>18</sup> This burgeoning energy demand is only expected to grow with the International Atomic Energy Agency (IAEA) predicting that the Chinese households will use almost twice the amount of energy by 2040.<sup>19</sup> One of the key factors that drive China's energy consumption is production expansion.<sup>20</sup> As it is crucial for the country's development, China is not willing to reduce its production expansion. As coal has proven to be detrimental in so many ways, nuclear power has emerged as a viable, alternate option to support its rapid development. These factors have elevated nuclear energy to play an important role in China's energy strategy.

In addition, recognising the need for cleaner sources, China has boosted its renewable energy capabilities. However, these renewable sources of energy, although very effective, have their own limitations. For one, these are intermittent sources of energy and energy storage technologies are not adequately advanced. Secondly, such plants have low capacity factors, high land requirements and non-availability as a baseload source of electricity. Nuclear energy, on the other hand, has a much higher capacity factor. Also, nuclear reactors require less maintenance, need refuelling only once in

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17. Mark Hibbs, "Other Issues Critical to Chinese Decision-making", in *The Future of Nuclear Power in China*, Carnegie Endowment for International Peace, May 14, 2018, at <https://carnegieendowment.org/2018/05/14/other-issues-critical-to-chinese-decisionmaking-pub-76316>, accessed on June 2, 2020.

18. "Renewable Energy in China: A Necessity, Not an Alternative", Wharton University of Pennsylvania, April 20, 2009, at <https://knowledge.wharton.upenn.edu/article/renewable-energy-in-china-a-necessity-not-an-alternative/>

19. James Griffiths, "China's gambling on a nuclear future, but is it destined to lose?", *CNN Business*, September 14, 2019, at <https://edition.cnn.com/2019/09/13/business/china-nuclear-climate-intl-hnk/index.html>, accessed on May 29, 2020.

20. Feng Wang, Haitao Yin, and Shoude Li, "China's Renewable Energy Policy: Commitments And Challenges", *Energy Policy*, 38, 2010, at <https://www.ourenergypolicy.org/wp-content/uploads/2014/07/China.pdf>, accessed on May 19, 2020.

**Increasing nuclear cooperation with other countries is not only expected to bring in more money to China but also to create energy dependency, achieve influence in these countries, and increase its say in issues of global nuclear governance. This appears to be China's version of the United States' "Atoms for Peace" programme of the 1950s.**

two years and do not depend on natural or environmental variables. In addition, they can be built close to areas of demand. Recognising this and understanding the problem of uneven distribution of energy resources in China, the government has been boosting the nuclear energy projects along with their renewable energy projects. In industrial parts of China that require high amount of baseload energy, nuclear power projects are found more viable and efficient.<sup>21</sup>

*To Further its Geo-economic Strategy*

With the rapid development of its nuclear technology and nuclear programme, China has been using clean energy technology, specifically nuclear power, for strategic leverage. After a speech delivered by Liu Baohua, the Nuclear Energy Director of the China Atomic Energy Authority (CAEA), the Chinese media stated that nuclear energy is "an important cornerstone of strategic power, a vehicle for civilian-military integration, and a 'China card' to play in the country's international cooperation diplomacy."<sup>22</sup> In this regard, China's nuclear industry is now developing to be a part of the country's dirigiste business model. China is doing this by exporting civil nuclear technology and equipment to other countries through its Belt and Road Initiative. Increasing nuclear cooperation with other countries is not only expected to bring in more money to China but also to create energy dependency, achieve influence in these countries, and increase its say in issues of global nuclear governance. This appears to be China's version of the United States' "Atoms for Peace" programme of the 1950s. The Atoms for Peace programme was so influential that vendors of

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21. Zhou Ping, "Nuclear Power Development in China", *Special Reports, IAEA Bulletin*, 1987, at <https://www.iaea.org/sites/default/files/29204784346.pdf>, accessed on May 3, 2020.

22. Mark Hibbs, n. 17.

the American nuclear industry sold reactors to more than 50 countries globally.<sup>23</sup> This not only boosted US ties with other countries but also paved the way for it to become a global leader in nuclear technology, which allowed the United States to influence the formation of global norms in the field of nuclear power.

China has signed several agreements (or is in the process of signing MoUs) with countries such as Argentina, Egypt, Kenya, Pakistan, Romania, Sudan, South Africa and Turkey, among others. They have even won stakes in the Hinkey Point C project in the United Kingdom. In a meeting of China's political advisory body, a senior nuclear industry official stated that China could build, at the least, thirty overseas nuclear

reactors through its Belt and Road Project by 2030.<sup>24</sup> The nuclear technology deployment business is undergoing a systemised development, enabling Chinese vendors to set up supply chains and begin new projects in other countries. This is in distinct contrast to the US and European firms which once held prominence in nuclear exports but are now facing problems of financial challenges and technological stagnation.<sup>25</sup>

In addition, China is currently in the process of constructing its first floating nuclear power plant and has thirty more in the pipeline.<sup>26</sup> It plans to

**China is currently in the process of constructing its first floating nuclear power plant and has thirty more in the pipeline. It plans to deploy it in the South China Sea, where it would not only support its offshore oil and gas exploration but also provide power to its artificial, militarised islands and gain strategic advantage in the contested area.**

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23. Ibid.

24. "China could build 30 'Belt and Road' nuclear reactors by 2030: official", Reuters, June 20, 2019, at <https://www.reuters.com/article/us-china-nuclearpower/china-could-build-30-belt-and-road-nuclear-reactors-by-2030-official-idUSKCN1TL0HZ>, accessed on June 6, 2020.

25. Manpreet Sethi, "The Asian Nuclear Power Landscape: A Contemporary Examination", in *Security in Times of Uncertainty. Asian Strategic Review 2017* (Pentagon Press, New Delhi: 2018), at [https://idsa.in/system/files/book/book\\_ASR2017.pdf](https://idsa.in/system/files/book/book_ASR2017.pdf)

26. Viet Phuong Nguyen, "China's Planned Floating Nuclear Power Facilities in South China Sea: Technical and Political Challenges", Belfercenter.org, November 21, 2018, at <https://www.belfercenter.org/publication/chinas-planned-floating-nuclear-power-facilities-south-china-sea-technical-and>, accessed on June 10, 2020.

deploy it in the South China Sea, where it would not only support its offshore oil and gas exploration but also provide power to its artificial, militarised islands and gain strategic advantage in the contested area.

Evidently, nuclear energy plays a very important role for China with not just economic, but also military and strategic implications. This is why there has been an increased focus on it since the end of the last decade, with China having decided by 2010 to “actively promote nuclear power.”<sup>27</sup> With focus on developing its nuclear power capabilities, the beginning of this decade marked China accounting for approximately forty per cent of the reactor construction globally.<sup>28</sup> However, the unfortunate Fukushima accident impacted nuclear programmes around the world, it also threw a spanner in China’s ambitious nuclear plans.

### **THE ACCIDENT AT FUKUSHIMA AND IMPACT ON CHINA’S NUCLEAR ENERGY PROGRAMME**

The Fukushima accident in one of the world’s most technologically advanced and experienced nuclear power generating countries raised apprehensions among other countries about their own vulnerability to such accidents. While several countries such as Belgium, Germany and Switzerland decided to do away with nuclear power altogether after the 3/11 accident, China’s reaction, however, was more balanced and calculated.

### **POLICY RESPONSES BY CHINA POST FUKUSHIMA**

#### *Temporary Suspension of Nuclear Power*

Immediately after the accident, the State Council in China temporarily suspended the approval of new nuclear power projects in order to warrant higher safety standards. It also mandated thorough and scrupulous inspection of its existing nuclear facilities to make sure they met the necessary safety requirements.

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27. Ibid., p. 134.

28. Jane Nakano, “The United States and China: Making Nuclear Energy Safer”, Brookings.edu, June 2013, at [https://www.brookings.edu/wp-content/uploads/2014/01/USChina-Making-Nuclear-Energy-Safer\\_JNakano.pdf](https://www.brookings.edu/wp-content/uploads/2014/01/USChina-Making-Nuclear-Energy-Safer_JNakano.pdf)



### *Increased Emphasis on Safety*

The Fukushima accident alarmed the Chinese authorities who had significantly accelerated their nuclear power development. The national policy on nuclear energy thus shifted from “moderate development” of nuclear power to “steady development with safety”.<sup>29</sup> Just five days after the unfortunate accident, China’s State Council declared that “... We will temporarily suspend approval for nuclear power projects, including those that have already begun preliminary work, before nuclear safety regulations are approved ... Safety is our top priority in developing nuclear power plants ...”.<sup>30</sup> Since then, the Chinese authorities made several promises to ensure safety and presented several new measures to take this ahead. In May 2012, a new safety plan for nuclear power was introduced and in October 2012, the government released a White Paper on energy policies. This document paid added emphasis on high safety standards for nuclear power reactors. Among the many initiatives, two important decisions were taken. The first was to restrict the construction of reactors in inland areas. This was done for safety reasons since reactors in inland areas would not have enough access to water supply in case of a serious accident. The other important decision was to adopt “third-generation” designs for future reactor construction. This was significant because although third-generation power designs have enhanced safety standards, they also cost more and take more time to construct.<sup>31</sup> In addition, new safety regulations were passed. This included the 2020 Vision for Nuclear Safety and Radioactive Pollution Prevention, which placed increased safety standards and stricter inspections. The Nuclear Safety Act was also passed which would ensure higher levels of nuclear safety. The Environmental Protection Department of China also issued new protocols that specified restrictions on site conditions for new power plants. These new regulations took into consideration factors such

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29. Viet Phuong Nguyen, n. 26, p. 121.

30. M. V. Ramana and Amy King, “A New Normal? The Changing Future of Nuclear Energy in China”, from *Learning from Fukushima: Nuclear power in East Asia* (Canberra: ANU Press, 2017), at <https://press-files.anu.edu.au/downloads/press/n3873/pdf/ch04.pdf>, accessed on June 13, 2020.

31. Ibid.

as geology and earthquakes while choosing potential sites for new power plants. New bodies were instituted to ensure high safety standards. This included the National Nuclear Safety Administration, China Earthquake Administration, etc. A report by the IAEA revealed that all Chinese nuclear plants were even supplied with new power supplies and water pumps as a precautionary step against flooding and loss of power, as a lesson from Fukushima. Along with this, new emergency response procedures were also created.

## **EFFECT OF FUKUSHIMA ON CHINA'S NUCLEAR ENERGY PROGRAMME**

### *Slowing Down of Nuclear Growth*

The Fukushima accident slowed the pace of China's development in the civil nuclear field. During the time of the Fukushima accident, China was said to have been considering almost 100 new nuclear projects that would be lined up in the coming two decades. However, the safety inspections and assessments delayed the timeline set up for the projects significantly. As approvals were held up for new nuclear power projects, it resulted in a slowdown of the civil nuclear programme. Although the government allowed the construction of coastal plants towards the end of 2012, it also revised its previously set target to achieve 80 GWe by 2020 to 58 GWe.<sup>32</sup>

### *Continued Support for Nuclear Power*

Although the Fukushima accident slowed the pace of development of civil nuclear energy, Chinese officials made it clear that the Fukushima accident would not alter the course of their nuclear energy strategy.<sup>33</sup> Tian Shujia, the Director of two nuclear safety centres of the Ministry of Environmental Protection, said that "There is a guarantee for the safety of China's nuclear power facilities and (China) will not abandon (its nuclear power plants) for

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32. Ibid.

33. Dr. Hooman Peimani, "Nuclear Energy in Asia: A Post-Fukushima Perspective", *Journal of Energy Security*, May 31, 2011, at <http://sites.asiasociety.org/asia21summit/wp-content/uploads/2010/11/Nuclear-Energy-in-Asia.pdf>, accessed on June 15, 2020.

fear of slight risks”.<sup>34</sup> China reiterated its ambitious plans for the development of its civil nuclear programme by announcing at the end of 2011 itself that China would make nuclear energy the base of its power-generation system in the next “10 to 20 years”, having planned to add almost 300 GWe of nuclear capacity in that time period.<sup>35</sup> China’s continued support to civil nuclear power was also evidenced in the White Paper on Energy Policy released in October 2012, which reiterated the role of nuclear energy in China’s plans to boost greener sources of power in its primary energy mix. The White Paper even made references to “invest more in nuclear power technological innovations, promote application of advanced technology, improve the equipment level, and attach great importance to personnel training.”<sup>36</sup>

### *Erosion of Public Trust*

One of the biggest outcomes of the Fukushima accident was the erosion of public trust in nuclear technology. Concerns over nuclear safety created paranoia among Chinese citizens. It was reported that in the immediate aftermath of the Fukushima accident, panicked citizens hoarded bags of iodised salt in the erroneous belief that it would protect them from radiation.<sup>37</sup>

Public support to nuclear power also declined significantly after the accident. This is evident from comparing the results of polls taken before and after the accident of people living near the Tianwan nuclear power plant in Lianyungang. The first poll was conducted in August 2008 and the second in March-April 2011. Response to the statement, “Nuclear power should be used in our country”, got 68 per cent agreement in the first round of polls, but declined to 32 per cent in the second one. Similarly, the concurrence to the idea, “We should quickly increase the number of nuclear power stations in China” saw a steady decline from 40 per cent to 17 per cent! The number

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34. Ibid.

35. Lt. Gen. Prakash Katosh, “Nuclear Energy—The Politics of It”, *Indian Defence Review*, April 13, 2015, at <http://www.indiandefencereview.com/news/nuclear-energy-the-politics-of-it/>, accessed on June 2, 2020.

36. Ming Yang and Xin Yu, “Energy Efficiency: Benefits for Environment and Society” (Springer, 2015), p. 152.

37. James Griffiths, n. 19.

**Not only has China achieved reasonable amount of experience in civil nuclear power generation, but has also made headway in indigenous nuclear technology and designs. In addition, considering the urgency to tackle the challenging problem of climate change, China appears to stay committed to nuclear power to deal with this crisis.**

of nuclear energy in China, while discussing the challenges that it faces in this endeavour.

of people who opposed nuclear power increased from 13 per cent to 54 per cent.<sup>38</sup> These anti-nuclear sentiments translated into widespread protests across the country. In fact, the following year, China's plans to build a uranium processing plant in Guangdong province were also called off due to increasing protests

#### **ASSESSING FUTURE TRAJECTORY OF NUCLEAR ENERGY IN CHINA**

The future of nuclear energy in China, just as it would be in every nation, is determined by several domestic as well as international factors. This section assesses these factors and attempts to analyse the future trajectory

#### **ASSESSING THE CURRENT TRENDS IN CHINA'S CIVIL NUCLEAR PROGRAMME**

##### *Optimistic Nuclear Future*

Considering the strides China has been making in the field of civil nuclear energy in the past two decades, China's future in this regard appears to be optimistic. Not only has China achieved reasonable amount of experience in civil nuclear power generation, but has also made headway in indigenous nuclear technology and designs. In addition, considering the urgency to tackle the challenging problem of climate change, China appears to stay committed to nuclear power to deal with this crisis. Projections made by official agencies also appear to be sanguine. The National Development and Reform Commission

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38. Ramana and King, n. 30.

of China aspires to achieve the target of 200 GWe of nuclear generating capacity by 2035.<sup>39</sup> In order to achieve these targets, several educational establishments too have been instituted which would help in setting a basis for training of nuclear specialists. The Chinese government has also announced plans to develop nuclear power industrial parks which would not only provide training but also enable the development of its nuclear supply chain.

In fact, China has also gone on a uranium buying spree to support its domestic as well as international nuclear ambitions. It has been buying huge amounts of uranium from countries such as Australia, Kazakhstan and Namibia and is also exploring the markets of Canada, Mongolia and Niger. This is because when China first began to develop its nuclear power programme, its domestic uranium production was enough to meet the demands. However, as China embarked on an extremely ambitious course of development, its domestic production was insufficient. It is estimated that China may require as much as 12,300-16,200 metric tonnes of uranium in 2030.<sup>40</sup> China plans to procure uranium from the following sources to meet its increasing demands: From its domestic reserves, overseas resources from its foreign investments, etc., and purchases from open markets.<sup>41</sup> In expectation of its future uranium requirements China has already begun hoarding uranium from these sources. In fact, in 2015 China's inventory had 85,000 metric tonnes of uranium, which is equivalent to 140 per cent of total annual global uranium demand. This implies that China was buying almost a quarter of the available uranium in the global market.<sup>42</sup>

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39. "China's nuclear power output jumps 18% year on year", *World Nuclear News*, February 24, 2020, at <https://www.world-nuclear-news.org/Articles/Chinas-nuclear-generating-capacity-continued-to-gr>, accessed on May 17, 2020.

40. Mark Hibbs, n. 17.

41. *Ibid.*

42. Mark Hibbs, n. 17.

The Chinese government is also providing immense support for innovation and technology development. This is evidenced by the number of floating nuclear power plants that China is building to safeguard its interests and provide energy to remote areas. In addition, China is also looking to export this technology to other countries such as Bangladesh which has a small territory with a large and dense population. It is also making strides in the development of indigenous nuclear reactor designs, the Hualong One being a key example of this, having earned the nickname “China’s business card”, considering its efficacy.<sup>43</sup>

### *Slow Domestic Growth Rate*

As discussed earlier, China has reduced the goal it had set in 2009 to achieve, 70 GW of energy by 2020 to 58 GW by 2020 in 2016. This happened for several reasons. First, the Chinese authorities had mandated more stringent safety clearances after the Fukushima accident. These new rules allow only third-generation nuclear technology designs which take longer to build. In addition, decision to not allow reactors to be built in inland areas had caused delays in the construction of more reactors. Anti-nuclear protests too had led to the stalling of several projects. Cumulatively, these factors resulted in a slower growth rate of nuclear power in China.

Analysts like M. V. Ramana and Amy King also argue that China has been entering into a phase of “new normal”. This phase is marked by lower domestic growth rate in the nuclear energy sector. They maintain that China is transforming to a comparatively low-growth economy, shifting from heavy industries to a service providing economy, which sees a relegation in energy demands. They contend that the electricity demand has also reduced as the Chinese economy has been going through some structural changes.<sup>44</sup> Other analysts like Jiang Lin, Gang He and Alexandria Yuan, caution the need to keep up with the changing trends in China’s energy sector. These trends that

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43. Sam Reynolds, “Why the Civil Nuclear Trap Is Part and Parcel of the Belt and Road Strategy”, *The Diplomat*, July 5, 2018, at <https://thediplomat.com/2018/07/why-the-civil-nuclear-trap-is-part-and-parcel-of-the-belt-and-road-strategy/>, accessed on June 2, 2020.

44. Ramana and King, n. 30.

they refer to are based on their study of GDP and electricity consumption over twenty years, which suggested that there is going to be a quiescent period in energy demand, specifically in richer provinces.<sup>45</sup> For example: Thermal power plants in China operated for about 400 hours less in 2015 than they did in 2014. Similarly, there was a reduction of about 100 hours of nuclear power plants supply of electricity into the grid. There has thus been an electrical supply surplus in China.<sup>46</sup> However, it is not clear if this is a short-term or a long-term trend. Thus, a plateau or a reduction in electricity demand may continue in China, which may result in slower pace of nuclear development in the country. This, however, does not necessarily suggest that the nuclear growth trajectory in China is pessimistic. Some experts perceive this as a “maturing” of the Chinese nuclear industry.<sup>47</sup>

In addition, considering that China is the world’s largest emitter of greenhouse gases, its environmental policies have a significant impact on the global fight against climate change. Lately, analysts have been observing a slackening in their renewable energy growth and an increase in its use of fossil fuels. Carbon dioxide emissions by China have increased by approximately 4% in the first half of 2019. Coal consumption has increased, taking it back to the levels China had in 2013.<sup>48</sup> In this regard, it is important to keep the momentum of green energy drive on.

## **CHALLENGES TO CHINA’S NUCLEAR POWER AMBITIONS**

While China’s nuclear future appears to be optimistic, it is, however, mired in several challenges.

### *Safety Concerns*

China’s nuclear industry holds a safe record, with official documents and statistics suggesting that no serious accidents have taken place in their facilities. The few minor incidents that have taken place have been graded

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45. Ramana and King, n. 30.

46. Ibid.

47. Ibid.

48. Zhou Ping, n. 21.

at Level 1 and 2 on the International Nuclear and Radiological Event Scale. The International Atomic Energy Agency—which leads teams of Integrated Regulatory Review Service (IRRS) experts to assess the safety of nuclear regulatory infrastructures of countries with nuclear power capabilities—had also stated in 2016 that China’s nuclear safety regulatory framework for nuclear and radiation safety is effective. However, considering the rate of growth of nuclear power in China, experts have emphasised a high focus on ensuring continued safety.<sup>49</sup> Such expressions generally reflect China’s poor industrial safety history. For instance, China Labour Bulletin, a Hong Kong based organisation on workers’ rights, stated in this regard that while China’s safety record has improved over the years “... accident rates, death tolls and the incidence of occupational disease are all still comparatively high ...”.<sup>50</sup> Official figures estimate that there were, on an average, about 81 deaths every day in the year 2019 from work-related accidents.<sup>51</sup> In addition, considering the poor working conditions and safety culture in China, there are concerns about profits being given priority over safety. Mark Hibbs, author and analyst at the Carnegie Endowment for International Peace, in this regard states that “China faces numerous challenges from its historically weak industrial safety culture and the strain on regulatory capacity that has been exacerbated by nuclear growth.”<sup>52</sup> A study undertaken by Jacqueline CK Lam, Lawrence YL Cheung, Y. Han, and SS Wang addressed the question whether China’s response to nuclear safety after Fukushima was genuine or just rhetoric. The paper studied the promises made by the Chinese government and followed up the actions it took to enhance safety mechanisms. One of their research findings in this regard revealed that “... China’s safety governance has been continuously challenged by institutional fragmentation, inadequate transparency, inadequate safety professionals,

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49. “IAEA Mission Says China’s Nuclear Regulator Effective; Should Continue to Enhance Safety Programme”, *International Atomic Energy Agency*, September 8, 2016, at <https://www.iaea.org/newscenter/pressreleases/iaea-mission-says-chinas-nuclear-regulator-effective-should-continue-to-enhance-safety-programme>, accessed on September 10, 2020.

50. James Griffiths, n. 19.

51. “Work Safety”, *China Labour Bulletin*, March 20, 2020, at <https://clb.org.hk/content/work-safety>, accessed on May 25, 2020.

52. James Griffiths, n. 19.



weak safety culture, and ambition to increase nuclear capacity three-fold by 2050 ...".<sup>53</sup> In addition, the government of China has admitted to 16 safety failures in operating nuclear power plants in 2016. These safety failures were caused due to personnel errors and included reasons such as breaching of operation guidelines and "pressing the wrong buttons".<sup>54</sup> In this regard, the National Nuclear Safety Administration too has discovered a series of flaws and inadequacies in China's nuclear industry ranging from designs to materials. Although these may appear to be small gaffes and oversights, if there is anything that Fukushima has taught regulators it is that minor negligent acts cumulatively add up to cause big disasters.

Concerns of nuclear safety in China are not just limited to their own facilities but also to the nuclear goods and services that they offer to other countries through their nuclear exports. This is even more significant considering that China has been offering nuclear technology know-how to first-timers. In this regard, China thus needs to focus on helping such nations establish the necessary regulatory, security and safety infrastructure, increasing transparency, setting up institutions, establishing stringent quality controls and promoting a safe working environment.

### *Public Opinion and Anti-Nuclear Sentiments*

Decisions regarding nuclear issues in China have historically been made without taking public opinion into consideration. In fact, when China first embarked on constructing nuclear power plants in the 1980s and 1990s, the petitions signed against constructing nuclear reactors were ignored and protestors were arrested.<sup>55</sup> Only recently have the government and nuclear regulators been trying to engage with the public. This is timely, considering the fact that there has been increasing anti-nuclear sentiments brewing amidst the Chinese public. A survey undertaken by the Chinese

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53. Jacqueline CK Lam, Lawrence YL Cheung, Y. Han, and SS Wang, "China's Response to Nuclear Safety Post-Fukushima: Genuine or Rhetoric?", Energy Policy Research Group, University of Cambridge, at <https://www.eprg.group.cam.ac.uk/wp-content/uploads/2018/11/1834-Text.pdf>, accessed on May 18, 2020.

54. Andrews-Speed and Zhang, n. 4, p. 114.

55. Mark Hibbs, n. 17.

**As dissent is carefully monitored in China, protests and demonstrations may be curbed if they gain more momentum, especially since the government considers nuclear power to be of strategic national interest.**

Academy of Engineering in 2017 revealed that only 40 per cent of the Chinese public supports the development of nuclear power in China.<sup>56</sup> As this dissent gets more vocal, it has been impacting the development of nuclear power. For example, in 2013 and 2016, plans to build nuclear fuel cycle installations were cancelled due to public objections. Protests also led to the plans to build a nuclear waste processing plant in Jiangsu to be cancelled.<sup>57</sup> However, questions about the efficacy of protests remain. As dissent is carefully monitored in China, protests and

demonstrations may be curbed if they gain more momentum, especially since the government considers nuclear power to be of strategic national interest.

Xi Jinping has reiterated several times that social stability is a principal priority for him, having stated that “winning or losing public support is an issue that concerns the CPC’s survival or extinction.”<sup>58</sup> In this regard, the Chinese leadership has recognised the need to communicate with the public and has been taking several measures to address anti-nuclear sentiments.

The Nuclear Safety Law in this regard has made several important provisions. For example, it lays emphasis on increased public engagement. Plant operators are required to hold public meetings with the citizens who live within 30 km of a plant site. This also helps them to communicate the benefits of nuclear power projects with regard to providing jobs and public services. It also enables the National Nuclear Safety administration and nuclear facility operators to provide information related to nuclear safety to the public, by

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56. Ibid.

57. Peter Fairley, “China’s losing its taste for nuclear power. That’s bad news”, *Technology Review*.com, December 12, 2018, at <https://www.technologyreview.com/2018/12/12/138271/chinas-losing-its-taste-for-nuclear-power-thats-bad-news/>, accessed on May 26, 2020.

58. “China Protest Forcing Nuclear Retreat Shows People Power”, *Bloomberg News*, July 15, 2013, at <https://www.bloomberg.com/news/articles/2013-07-14/china-protest-forcing-nuclear-retreat-shows-people-power>, accessed on July 16, 2020.

including provisions that allow citizens to request information regarding nuclear power projects by local agencies.<sup>59</sup> Since 2014, the National Nuclear Safety administration issued several notices and measures to augment the public information available on nuclear power. Their website too now includes more information on their nuclear programme. China General Nuclear Power Group, the largest nuclear operator in China, too, hosts visitors and works with schools to familiarise them with nuclear science. They have also been devising innovative ways to gain support and promote nuclear power by holding events such as “Most beautiful wedding photos taken at a nuclear power plant.”<sup>60</sup> However, China’s reputation with regard to its low level of transparency and high level of government control has resulted in questioning of the credibility of the statements and figures that it puts out in public.

**China has been signing cooperation agreements with a few countries which do not necessarily have the regulatory requirements to handle a civil nuclear programme. Several countries with whom China has been discussing cooperation agreements are feared to have weak and lax regulatory environments.**

***BRI: Mistrust and Concerns of Civil Nuclear Trap***

As discussed earlier, China intends to use its civil nuclear programme through its BRI projects to push for strategic gains. This has raised concerns by other countries for several reasons. This is primarily because China has been signing cooperation agreements with a few countries which do not necessarily have the regulatory requirements to handle a civil nuclear programme. Several countries with whom China has been discussing cooperation agreements are feared to have weak and lax regulatory environments. For example, Sudan recently signed a nuclear cooperation

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59. Philip Andrews-Speed, n. 5, pp. 23-46.

60. “CGN wins honor for innovative social communication”, CGN, November 25, 2017, at [http://en.cgnc.com.cn/encgn/c100035/2017-11/25/content\\_58c264d74cc5492fa6c1bf33550a0d3a.shtml#:~:text=The%20%E2%80%9CMost%20beautiful%20wedding%20photos,%2C%20in%20Shenzhen%2C%20Guangdong%20province](http://en.cgnc.com.cn/encgn/c100035/2017-11/25/content_58c264d74cc5492fa6c1bf33550a0d3a.shtml#:~:text=The%20%E2%80%9CMost%20beautiful%20wedding%20photos,%2C%20in%20Shenzhen%2C%20Guangdong%20province), accessed on August 10, 2020.

agreement with China to get its first nuclear power reactor. However, a study by the Institute for Science and International Security in 2017 rated countries based on capabilities to limit nuclear trafficking. Among the 200 countries, Sudan was ranked 194.<sup>61</sup>

In addition, there have been concerns of how having China help in assisting set up nuclear power capabilities may give them a strategic leverage and how they may use this to coerce decisions in their favour in case of discord or tension with partnering countries. For example: China could implicitly threaten to disrupt their nuclear power supply. The most recent example of this is the brewing tensions between the UK and China. Beijing is unhappy with the UK for several reasons. First, China introduced a new security law for Hong Kong on June 30, 2020 which reduces Hong Kong's autonomy and increases China's power to punish protestors and dissenters. In response to this, Britain offered help to up to 3 million Hong Kong citizens who wanted to flee Hong Kong, by making provisions for them to live and work in the UK. This did not go down well with China, who threatened that if the UK does so, it would have to "bear all consequences".<sup>62</sup> In addition, the Chinese company, Huawei, which was given permission to retain a 35 per cent presence in the 5G network in the UK, has witnessed a rescinding of this deal. The recent meeting of Britain's National Security Council decided on new plans that would build western alternatives to Huawei. In this regard, the nuclear power deal between the two countries is speculated to be the next flashpoint, as China has threatened Britain with withdrawal of its support for their new 20 billion pound Hinkley Point C power station. China General Nuclear Power Group (CGN) holds a 30 per cent minority stake in this project, in partnership with EDF.<sup>63</sup> China is well aware of the importance

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61. Sam Reynolds, n. 43.

62. Lily Kuo and Patrick Wintour, "Hong Kong: China threatens retaliation against UK for offer to Hongkongers", *The Guardian*, July 2, 2020, at <https://www.theguardian.com/world/2020/jul/02/china-could-prevent-hongkongers-moving-to-uk-says-dominic-raab>, accessed on July 16, 2020.

63. Catherine Kennedy, "Risk to UK nuclear plants as China threatens to remove support", *New Civil Engineer*, June 9, 2020, at <https://www.newcivilengineer.com/latest/risk-to-uk-nuclear-plants-as-china-threatens-to-remove-support-09-06-2020/>, accessed on July 17, 2020.

of this nuclear power project for Britain to achieve its decarbonising energy goals, and thus has a leverage of coercing negotiations in its favour. In this regard, Anthony Glees, the director of the Centre for Security and Intelligence Studies at the University of Buckingham considers the Chinese involvement in Britain's civil nuclear power industry as a "ticking time bomb".<sup>64</sup>

China's nuclear export industry too has been facing several challenges, foremost among them being suspicion and scepticism by other countries. State-owned energy corporations like the China General Nuclear Power Group (CGN), for one, has been viewed suspiciously by other countries to be an agency for espionage. The United States, for example, has accused CGN of spying and attempting to steal military secrets of the US. Correspondingly, CGN featured in a list of companies that have connections to the Chinese military put out by the Pentagon.<sup>65</sup> Recently, the Romanian government asked *Nuclearelectrica*, the state-owned energy company in Romania, to terminate its partnership with CGN. Although the deal was signed five years ago to build two new reactors in Romania, it was scrapped after the Romanian Ministry of Economy and Energy—which is a majority shareholder of the energy company—asked the Company to end the cooperation agreement due to concerns over Chinese investments and reliability of Chinese expertise.<sup>66</sup> As more countries are getting sceptical about engaging in nuclear cooperation with China, it has emerged as a major challenge to China's nuclear export projects. China will have to engage in an extensive rebranding strategy to develop its credibility to take its nuclear business further.

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64. James Cooke, "Chinese involvement in nuclear power is a 'ticking time bomb', expert warns", *The Telegraph*, July 7, 2020, at <https://www.telegraph.co.uk/technology/2020/07/07/chinese-involvement-nuclear-power-ticking-time-bomb-expert-warns/>, accessed on July 17, 2020.

65. Tony Capaccio and Jenny Leonard, "Pentagon names 20 'Communist Chinese military companies' operating in US, sanctions likely", *The Print*, June 25, 2020, at <https://theprint.in/world/pentagon-names-20-communist-chinese-military-companies-operating-in-us-sanctions-likely/448281/>, accessed on July 16, 2020.

66. Ella Kietlinska and Gina Sturdza, "Romania Cancels Deal With Chinese Nuclear Power Company After Raising Concerns In January", *Epoch Times*, June 2, 2020, at [https://www.theepochtimes.com/Romania-Cancels-Deal-With-Chinese-Nuclear-Power-Company-After-Raising-Concerns-In-January\\_3373821.html](https://www.theepochtimes.com/Romania-Cancels-Deal-With-Chinese-Nuclear-Power-Company-After-Raising-Concerns-In-January_3373821.html), accessed on June 5, 2020.

## CONCLUSION

China's aim to meet its goal of achieving 58 GWe of energy by nuclear power by the end of 2020 appears to be unlikely since the operations in October 2019 amounted to only about 45.7 GWe.<sup>67</sup> This, however, does not necessarily mean that the future of nuclear power in China is declining. This could be attributed to the slowing in the development of nuclear power in China post Fukushima, as the country began to ramp up its safety protocols. Owing to the strong policy and financial support of the Chinese government, in addition to its ambitious plans of boosting nuclear exports, it appears that the future of nuclear power in China is optimistic. In addition, it offers numerous advantages to China from strategic, economic, diplomatic to environmental benefits. Analysts also estimate that considering the growth trajectory of nuclear power in China, it may overtake France as the world's second biggest producer of nuclear energy within two years.<sup>68</sup> The annual parliamentary meeting in Beijing that took place earlier this year also illustrated China's continued interest in nuclear development. Delegates during this meeting suggested that China should begin with the construction of six to eight nuclear reactors each year, as it will not only help in curbing the problem of climate change but would also help in creating more jobs, as lack of employment has been emerging as a pressing challenge for China.<sup>69</sup>

The global warming crisis has also become an important impetus for China to develop nuclear power, especially considering that it contributes to 27 per cent of the global greenhouse gases (excluding land use, land-use change, and forestry), making it the largest emitter of greenhouse gases in the world.<sup>70</sup> While China claims to achieve its 2020 carbon emission goals three

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67. Ramana and King, n. 30, p. 128.

68. François Morin, "China is still on track to become the world's leading nuclear power", *Energypost.eu*, December 7, 2017, at <https://energypost.eu/china-is-still-on-track-to-become-the-worlds-leading-nuclear-power/>, accessed on May 20, 2020.

69. "China to dominate nuclear power as Beijing bets on home-grown reactors", *The Japan Times*, June 2, 2020, at <https://www.japantimes.co.jp/news/2020/06/02/business/china-nuclear-power-homegrown-reactors/>, accessed on July 20, 2020.

70. "China, Country Summary", *Climate Action Tracker*, at <https://climateactiontracker.org/countries/china/>, accessed on September 10, 2020.

years ahead of its target,<sup>71</sup> it is important to note that its Nationally Determined Contribution to achieve the 2030 Paris Agreement goals are graded by the Climate Change Tracker as “highly insufficient”.<sup>72</sup> In this regard, there is a need to accelerate its green growth policies, in which nuclear power can play an important role.

China is also likely to dominate the global nuclear industry. This will not only have domestic implications but will also have a wide range of impacts, from altering the global nuclear architecture to international trade and climate change mitigation. China’s growth in nuclear power could also give rise to a new dimension to world power politics among countries such as the US, China and Russia. For example, US President Donald Trump has already been calling for efforts to revitalise the US nuclear industry in order to prevent China and Russia from creating spheres of energy dependencies around the world.

The Fukushima accident invoked the much needed attention to nuclear safety. It brought in the realisation that nuclear safety cannot be taken for granted and there is no place for laxity or negligence. China was quick to learn these lessons, as discussed earlier, as they examined their safety systems and instituted more measures to enhance safety.

The ongoing COVID-19 crisis has also gone to prove the efficiency of China’s nuclear power industry. No immediate setbacks are expected in the nuclear industry because of the current pandemic. In this regard Tang Bo, Director of the nuclear safety inspection department at the Chinese Ministry of Ecology and Environment (MEE), stated that the operational reactors have not been affected by the pandemic as none of them had to be suspended and the construction work of new reactor units too has resumed.<sup>73</sup>

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71. “China Meets 2020 Carbon Target Three Years Ahead of Schedule”, *United Nations Climate Change*, March 28, 2018, at <https://unfccc.int/news/china-meets-2020-carbon-target-three-years-ahead-of-schedule>, accessed on September 10, 2020.

72. *Ibid.*

73. “China says virus outbreak will not impact nuclear power plant construction”, Reuters, April 15, 2020. <https://www.reuters.com/article/us-china-energy-nuclear/china-says-virus-outbreak-will-not-impact-nuclear-power-plant-construction-idUSKCN21X0B4>, accessed on June 18, 2020.

Although the future of nuclear power appears to be going on a successful trajectory, there are several challenges that require more attention by Chinese authorities. How China manages these risks and challenges would go a long way in determining its future not just in China but in other nuclear power pursuing countries. First, this positive trajectory could slow down, considering the increasing contradictions in China's green energy and electricity policies. In addition, nuclear safety remains to be a critical challenge. Although China has ramped up efforts to enhance nuclear safety in the wake of Fukushima, it still requires more scrutiny. China's nuclear export strategy, too, if not handled with utmost levels of precaution and safeguards, could lead to disastrous effects in other countries.

These are important factors, which have the potential to change the trajectory of the development of nuclear power in China. In addition, other factors such as breakthroughs in alternate power generation and storage technologies could also impact this growth trajectory. All in all, the way China manages these risks and makes constant, systematic changes to manage them will go a long way in determining China's future in civil nuclear power development.



# A COMPARATIVE ASSESSMENT OF INDIA'S AND CHINA'S DEVELOPMENT ASSISTANCE IN NEPAL AND BHUTAN AND ITS STRATEGIC IMPLICATIONS

URMI TAT

Using development diplomacy as a tool of foreign policy came into prominence after the end of World War II when there was much to be rebuilt and redesigned the world over. New alliances had to be forged and a new world order had to be shaped. Economic and development assistance soon embodied the new currency of strategic diplomacy. The realists saw developmental assistance as a tool to promote national interests by creating dominant-dependent relationships. The liberals, on the other hand, saw developmental assistance as a platform to create interdependencies between nations, thereby making hostilities between them undesirable. The developed and the developing nations came up with their own models of economic assistance to capitalise on the interconnectedness of this new world. Each approach displayed a unique motive but also had several convergences. This paper examines India's development approach towards its Himalayan neighbours Nepal and Bhutan, to understand how it has aimed to gain strategic leverage through this method of soft-power diplomacy. This is then contrasted with China's approach in the region.

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**The realists saw developmental assistance as a tool to promote national interests by creating dominant-dependent relationships. The liberals, on the other hand, saw developmental assistance as a platform to create interdependencies between nations, thereby making hostilities between them undesirable.**

attempts to highlight the differences in approach between India and China.

At the onset, there are several questions to explore: What are India's motives in offering development assistance in Nepal and Bhutan? What are the convergences and divergences in the approaches of China and India? What is the potential for these bilateral relationships, looking ahead? Has India been able to develop a distinct model of development assistance in this region? What can be added to India's strategy to further its relations? To answer these questions, the paper first delves into a brief account of the economies of Nepal and Bhutan before examining the historical engagement that both India and China have had with these two countries. It then

### **NEPAL'S ECONOMY: HOW IMPORTANT IS FOREIGN AID?**

Nepal's location shares a distinction of being advantageous and precarious at the same time given that it is sandwiched between the cold peace of its neighbours, India and China. Nepal prides itself in being a nation that has never been colonised, and has historically followed a diversified foreign policy, taking full advantage of its geostrategic location.<sup>1</sup> For instance, even during the Cold War, Nepal received assistance from the US and its allies, as well as from the erstwhile Soviet Union. Declassified US intelligence documents pertaining to the 1960s suggest that then Nepalese Prime Minister, B. P. Koirala, was seeking aid from the US on the pretext that the king, Mahendra Bir Bikram Shah Dev, would lean towards the Soviet

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1. Anil Sidgel, "China's growing footprint in Nepal: Challenges and Opportunities for India", Observer Research Foundation. October 3, 2018, at <https://www.orfonline.org/research/chinas-growing-footprint-in-nepal-challenges-and-opportunities-for-india/>

Union in case Washington failed to step up assistance. Like India, which sought to use its non-alignment policy to benefit economically from both camps during the Cold War, Nepal also deployed its foreign policy for economic gain from all powers. Given Nepal's power asymmetry with India and China today, it is no surprise that it seeks to swing between its neighbours to maintain autonomy.

At the outset, however, it becomes pertinent to examine the trappings of Nepal's current economic situation. How dependent is it on foreign assistance to develop its economy? Where is the major potential for investment in Nepal? How well does Nepal do on global development indicators?

In terms of core components of the economy, just over 51 per cent of Nepal's gross domestic product (GDP) comes from its service sector. Agriculture contributed the second largest amount, while thirteen per cent came from the industrial sector. The majority of the Nepalese population lives in rural areas, and is dependent on agriculture for its livelihood.<sup>2</sup> This implies that the economy is run largely by the primary and tertiary sectors and that the secondary or manufacturing and industrial sector lags behind. However, agricultural productivity is also very low. The low yields result from shortage of fertilisers and improved seed and from the use of inefficient techniques. Since only a tiny percentage of Nepal's cultivated land area is under irrigation, output depends upon the vagaries of the weather. Most industries are small, and have localised operations based on the processing of agricultural products. Labour force is mostly in agriculture (76 per cent), services (18 per cent) and industry (6 per cent).<sup>3</sup>

**The majority of the Nepalese population lives in rural areas, and is dependent on agriculture for its livelihood. This implies that the economy is run largely by the primary and tertiary sectors and that the secondary or manufacturing and industrial sector lags behind. However, agricultural productivity is also very low.**

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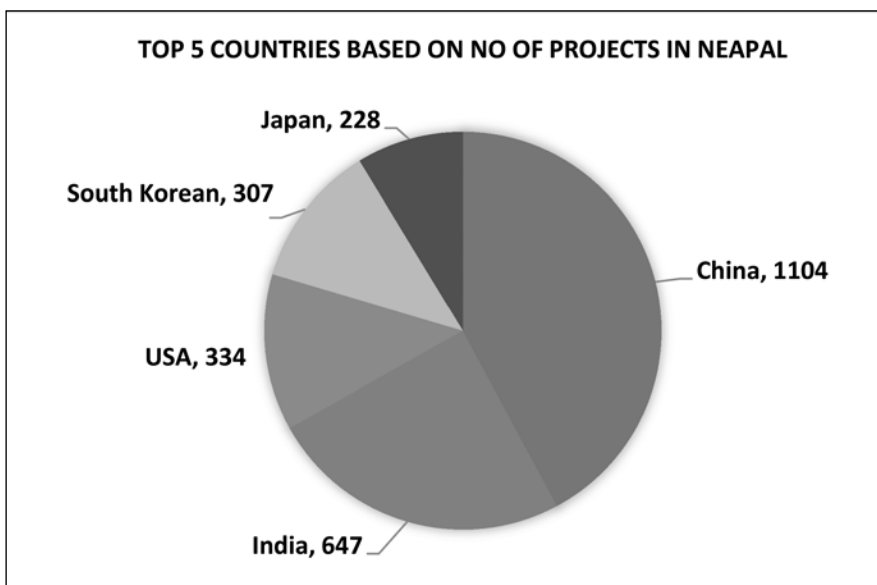
2. H. Plecher, "Distribution of GDP across economic sectors in Nepal," Statista, at <https://www.statista.com/statistics/425750/nepal-gdp-distribution-across-economic-sectors/>

3. Ramesh KC, "Nepali Economy, FDI and China", Medium | Business, at <https://medium.com/bizserve/nepali-economy-fdi-china-63a6b7e012c2>

As of 2017 Nepal had a negative trade balance of US\$ 8.75 billion in net imports as compared to their trade balance in 1995 when they still had a negative trade balance of US\$ 262 million in net imports. Growing trade imbalance implies more borrowing to pay off rising costs of imports, creating a difficult environment for local industries and a drain of foreign exchange which could be problematic in times of crises.

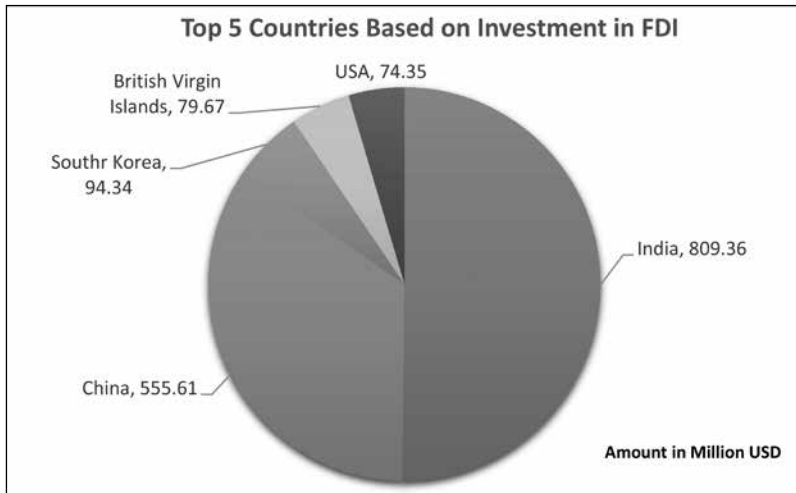
Nepal has also been a theatre of economic activity for both India and China, which seek to gain diplomatic leverage with their investments. It is interesting to note that, although Nepal-India ties are historically stronger, China has been able to make quick incursions and initiate several projects in Nepal, even outdoing India. The total amount of foreign investment in Nepal, however, is still favourable to India.

**Fig. 1: FDI in Nepal based on the number of projects initiated<sup>4</sup>**



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4. Ibid.

**Fig. 2: FDI in Nepal based on total investments in Nepal<sup>5</sup>**

Connectivity in South Asia is often held ransom to infrastructure and bureaucratic inefficiency and border issues. Transport facilities in Nepal are very limited; few independent nations in the world of comparable size have such little road mileage and so few motor vehicles. Construction of new roads has been undertaken since the 1970s with aid from India, China, Great Britain, and the United States. The meagre road-transport facilities in Nepal are supplemented by only a few railway and air-transport links.

Further, the economy is set to take a hit in the post-COVID scenario. The envisioned growth rate for 2021 is to be 2.4 per cent. The widening fiscal deficit seen above could look to expand even further with the government having to spend more to bail out troubled sectors. It could also mean greater overseas borrowing, thus increasing its debt burden. Post the 2015 earthquake in Nepal, the Himalayan country had seen a new robustness to its economy, with an increase in reconstruction aid, high electricity production, and an increase in big infrastructure projects. However, this pace is set to slow down, due to a loss in revenue via remittances from Nepalis working

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5. Ibid.

abroad<sup>6</sup> and a slowdown in the tourism sector.<sup>7</sup> This may be an opportunity for its neighbours to expand support to Nepal.

In order to better understand the role of development diplomacy to further strategic interest in Nepal, the role of India and China will be looked at from a historical perspective and then compared to bring out points of engagement and contention.

### **INDIA AND NEPAL: ECONOMIC ENGAGEMENT OVER THE DECADES**

India's engagement with Nepal is fairly unique as there have historically been close people-to-people interactions. For instance, Nepal has many religious sites which are associated with Hindu mythologies like the Ramayana and Mahabharata, as well as Buddhist religious sites. Even in the political realm, there have been instances of members of the Nepalese royal family marrying into Indian royal families. Historically as well, many Nepali leaders have contributed to India's struggle for independence.<sup>8</sup>

However, several thorns have developed in bilateral relations including reluctance to respond to regular border-encroachment complaints, high-structure build-up along the border, inundation complaints, the armed border forces' heated exchanges, trade and transit crises, and embargoes.<sup>9</sup>

Historically, provisions of the 1950 Indo-Nepal Peace and Friendship Treaty (1950 Treaty: Article 5, Letter of Exchange: Article 2, Indo-Nepal Security Cooperation Agreement, 1965: Article 5), constrained Nepal as an

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6. This was responsible for growth in the service sector post-2000s. With many people out of work, the service sector could be affected. The service sector contributes to over 57 per cent of the GDP.

7. Nepal's tourism sector contributes 2.1 per cent to GDP.

8. Jayant Prasad, former Indian Ambassador to Nepal, notes: Many of those who participated in building Nepalese democracy also fought for India's freedom, for which they were jailed by the British. The list included Matrika Koirala, B. P. Koirala and Man Mohan Adhikari, who became Prime Ministers of Nepal.

Jayant Prasad, "A New Template for India-Nepal Ties", *The Hindu*, August 2, 2014, at <http://www.thehindu.com/opinion/lead/a-new-template-for-indianepal-ties/article6272963.ece>

9. One instance of the SSB issue at the border, see <https://thehimalayantimes.com/nepal/nepali-killed-indian-border-security-personnel-open-fire-kanchanpur/>; for the dam build-up and flooding issue, see <https://myrepublica.nagariknetwork.com/news/indian-dams-causing-floods-in-nepal-locals/>; for an example of trade hassle, see <https://thehimalayantimes.com/business/nepali-traders-face-hassles-ginger-export-india/>

ally and made it a state under India's security umbrella.<sup>10</sup> Article 7 of the Treaty states that the Governments of India and Nepal agree to grant, on reciprocal basis, to the nationals of one country in the territories of the other, the same privileges in the matter of participation in trade and commerce and movement.<sup>11</sup> Further, Article 5 grants the Government of Nepal transit rights in terms of import from or through India for commercial items and arms and ammunition.<sup>12</sup> The provision in the treaty for National Treatment has resulted in significant employment opportunities for many citizens coming from Nepal. Approximately six million people from Nepal are working in India.<sup>13</sup> This has resulted in significant remittances to Nepal.

Despite being a seminal document governing relations between the two countries, this Peace and Friendship Treaty of 1950 is now perceived by Nepalese political leadership as outdated and out of sync with modern times since it does not address key economic issues. To address the points of discontent in the treaty, an Eminent Person's Group (EPG) was formed by the two governments in 2014. However, the proposals are yet to be accepted. Thus, there continues to be a shadow on the overarching friendship between the two countries.

Nepal was the first country to receive India's development assistance, in 1951. In 1954, the Indian Aid Mission was initiated, and approximately 75 developmental projects were agreed upon. In 1966, it was rechristened the India Cooperation Mission. India's objective with its aid programme was to supplement the efforts of the local government in sectors like education, health and infrastructure. India has been actively involved in small development projects which focus on infrastructure and capacity building in areas of education, health and community development and are implemented by local bodies in Nepal.

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10. Anil Sigdel, "China's Growing Footprint in Nepal: Challenges and Opportunities for India", Observer Research Foundation. Issue Brief. October 3, 2018, at [https://www.orfonline.org/research/chinas-growing-footprint-in-nepal-challenges-and-opportunities-for-india/#\\_edn8](https://www.orfonline.org/research/chinas-growing-footprint-in-nepal-challenges-and-opportunities-for-india/#_edn8)
  11. Treaty of Peace and Friendship between the Government of India and the Government of Nepal, Ministry of External Affairs, Government of India, July 31, 1950, at <http://mea.gov.in/bilateraldocuments.htm?dtl/6295/Treaty+of+Peace+and+Friendship>
  12. Ibid.
  13. "India-Nepal Relations", Ministry of External Affairs, Government of India, February 2017, at [http://www.mea.gov.in/Portal/ForeignRelation/India\\_Nepal\\_Relations\\_11\\_04\\_2017.pdf](http://www.mea.gov.in/Portal/ForeignRelation/India_Nepal_Relations_11_04_2017.pdf)

**In the telecommunications sector, India provided assistance for laying of the 904-km Optical Fibre cable along the East-West Highway. For connectivity, India had helped in building and upgrading roads from highways to local rural constructions.**

Education initiatives include construction of school and college buildings with state-of-the-art equipment. Health was an expansive sector of investment for India. Apart from providing a regular supply of cheap medicines and equipment, hospitals and trauma centres had also been constructed with Indian assistance. India had even involved itself in combating Iodine Deficiency and Goitre in Nepal, in line with its national programmes.

In the telecommunications sector, India provided assistance for laying of the 904-km Optical Fibre cable along the East-West Highway. For connectivity, India had helped in building and upgrading roads from highways to local rural constructions. India has also been involved in construction of roads along the swampy Terai region of Nepal. Electrification, flood control and drinking water projects have also been undertaken by India even in remote villages of Nepal.

As far as cross-border projects are concerned, Government of India has committed to provide assistance to Government of Nepal for the establishment of Integrated Check-Posts (ICPs) at four major points along the India-Nepal border. These are: Raxaul (India)-Birgunj (Nepal), Sunauli (India)-Bhairahawa (Nepal), Jogbani (India)-Biratnagar (Nepal) and Nepalgunj Road (India)-Nepalgunj (Nepal). Government of India had also agreed to establish cross-border railway links at five locations on the Indo-Nepal border. These are (i) Jaynagar in India to Bardibas in Nepal, (ii) Jogbani in India to Biratnagar in Nepal, (iii) Nautanwa in India to Bhairahawa in Nepal, (iv) Rupaidiha in India to Nepalgunj in Nepal and (v) New Jalpaiguri in India to Kakarbhitta in Nepal.

Cooperation in internal security related areas include developing quality human resources for Nepal Police to achieve organisational and individual objectives with a strong commitment to service.<sup>14</sup>

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14. Embassy of India, Kathmandu, Nepal, "Development Partnership", at <https://www.indembkathmandu.gov.in/page/about-development-partnership/>



In terms of connectivity projects, the Tribhuvan Rajpath is one of the first substantive connectivity projects undertaken by India. The 116-km highway construction was completed within three years in 1956. Although this initiative was welcomed by some scholars in Nepal, it was also seen by many to be of strategic significance to India. India's road-building activity seemed guided by the need to touch economically important areas of Palung, Daman and Thankot.<sup>15</sup> In the early years of Cold War politics, India and the US collaborated on connectivity projects in Nepal. In 1958, the US, India and Nepal signed a regional agreement concerning the development of the transportation facilities.<sup>16</sup> Following the agreement, the three countries decided to create a Regional Transport Organisation (RTO) which stands defunct today. Under the auspices of the RTO, the construction of eight roads was planned.<sup>17</sup> However, the very functioning of the RTO was plagued by numerous design and administrative challenges and this multilateral agreement was terminated in 1963. The US\$ 1 million worth of American road-building equipment that was left behind in Nepal was used in the construction of the Chinese aided Kathmandu-Kodari road later.<sup>18</sup> The collapse of the RTO also meant that India took the lead in constructing some of the roads that were initially planned under the organisation.

The Mahendra Rajmarg (East-West) highway was an important project for rural Nepal, built with Indian assistance. The project began in the early 1960s and ended in the early 1980s. Prior to its construction, people were forced to

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15. Mahendra P. Lama, "Aid in pre-1990 Nepal", *The Kathmandu Post*, March 8, 2017, at <http://kathmandupost.ekantipur.com/printedition/news/2017-03-08/aid-in-pre-1990-nepal.html>

16. "United States Treaties and Other International Agreements", Vol. 14, Part I, Department of State, United States Government, 1964.

17. "Development assistance of India to Nepal from 1952 to 1972", Indian Cooperation Mission Kathmandu, Government of India, March 1972.

18. Christa A. Skerry, Kerry Moran and Kay M. Calavan, "Four Decades of Development. The History of U.S. Assistance to Nepal 1951-1991", United States Agency for International Development (USAID) in Kathmandu, 1991, at [https://pdf.usaid.gov/pdf\\_docs/PNABR755.pdf](https://pdf.usaid.gov/pdf_docs/PNABR755.pdf)

travel through India to reach the east or west of Nepal, due to the presence of densely forested regions. Besides enhancing intra-country connectivity, the highway also accounted for positive changes in demographic, sociological, and economic sectors of development. Various urban centres prospered in areas along the highway that would have otherwise been left relatively unpopulated.

All these connectivity projects mentioned above had a positive socio-economic impact in Nepal. For instance, the 1971 Census report clearly states that the eradication of malaria in the infected districts and the construction of the roads across the Mahabharat Range and the Terai belt to India played an important role in the rehabilitation of people in the Terai and in marketing the production of cereals from the Terai region in the metropolitan city of Kathmandu, as well as in promoting the export of these products to the Indian markets and abroad.<sup>19</sup> The report also goes on to state that the population of eastern Terai “increased by 45 per cent in the intercensal period” (1961-71).<sup>20</sup> There has also been an acknowledgement of an increase in literacy rates in the areas connected by the projects.

Railway connectivity between India and Nepal had been less than satisfactory in the initial years. In the recent past, however, there has been a renewed effort to revive old railway lines and establish new railway lines between India and Nepal. Railway networks between India and Nepal were initiated during the colonial period for the transfer of natural resources. For example, the railway line between Janakpur in Nepal and Jaynagar in Bihar was built in 1937 to carry forest products from Nepal to India.<sup>21</sup> There are currently two lines operating between the countries: these are Jaynagar to Janakpur and Raxaul to Birgunj. There is no rail link to Kathmandu till date, although a railway project between Kathmandu and Raxaul is currently at the pre-feasibility assessment stage. Any improvements to the railway lines or addition of new lines would result in

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19. “The Analysis of the Population Statistics of Nepal, 1971,” Central Bureau of Statistics. Jore Ganesh Press, 1977, p. 29.

20. Ibid.

21. “Nepal’s Colonial-Era Rail Link Slowly Chugs Back to Life”, *The Wire*, June 16, 2017, at <https://thewire.in/147940/nepal-colonial-era-rail-link/>

significant positive impact on the local economy, and increase the number of tourists visiting the temple towns such as Janakpur. While there is renewed emphasis on upgrading and operationalising railway lines between the two countries, such efforts have had to take on multiple challenges, such as land acquisition and compensation for the landowners.

In terms of building railway links, India has a few advantages: first, robust railway infrastructure is in place on the Indian side, specifically in the states of Uttar Pradesh and Bihar. So, any India-Nepal railway project would merely be an extension of existing networks. Second, the geography between the plains of Uttar Pradesh, Bihar and the Terai region of Nepal is relatively friendly. Finally, there is a substantive movement of people already in place. Thus, the financial viability of the railway networks is not a challenge. The objective of these railway projects is to establish greater connectivity between the high-density population centres of the two countries. The Indian Railways Minister noted in 2017 that there would be a need to operationalise the Delhi-Kathmandu and Kolkata-Kathmandu railway lines as well.<sup>22</sup>

India has also played an important role in Nepal's aviation sector. In the early 1950s, the airport in Kathmandu, which was later renamed Tribhuvan airport, was upgraded with Indian support. In fact, the first chartered flight was between Kathmandu and Calcutta in 1950. In 1964, an agreement on air services was signed between India and Nepal.<sup>23</sup> However, in the recent past, the Chinese have also made their presence felt in Nepal's aviation sector by offering soft loans and expertise for three international airports in places such as Pokhara, Lumbini and Janakpur.<sup>24</sup>

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22. Dipanjan Roy Chaudhury, "India proposes direct rail link to Kathmandu from Delhi & Kolkata; mulls cargo train to Bangladesh", *The Economic Times*, February 24, 2017, at <https://economictimes.indiatimes.com/industry/transportation/railways/india-proposes-direct-rail-link-to-kathmandu-from-delhi-kolkata-mulls-cargo-train-to-bangladesh/articleshow/57323387.cms>

23. Agreement between the Government of India and His Majesty's Government of Nepal Relating to Air Services, Ministry of External Affairs, November 26, 1964, at <http://mea.gov.in/bilateral-documents.htm?dtl/6430/Air+Agreement>

24. Mihir Mishra, "India to discuss aviation assistance with Nepal to help build three airports," *Economic Times*, January 10, 2017, at <https://economictimes.indiatimes.com/industry/transportation/airlines/-aviation/india-to-discuss-aviationassistance-with-nepal-to-help-build-three-airports/articleshow/56429373.cms>

Trade and transit between the two countries is governed by the Nepal-India Transit Treaty of 1991.<sup>25</sup> The treaty allows for traffic in transit to be exempt from customs duties and makes a provision for developing warehouses, sheds and open space at the Calcutta port to use for transit trade. In order to facilitate easier movement of goods between the two countries, integrated customs ports (ICP) have been operationalised.<sup>26</sup> The ICP will have several infrastructure facilities such as warehouse, parking lots, etc. These agreements are particularly significant for Nepal since two-thirds of Nepal's total trade is with India only. Not only that, more than 90 per cent of landlocked Nepal's exports and imports transit through its large southern neighbour.

There were several pressure points in this area of transit that were identified in the bilateral relationship over the decades. Primary among them was that Nepal found itself to be reliant on India for its exports, and thus never acquiring the comparative advantage to increase the competitiveness of its own exports. This equation had failed to uplift local enterprises and give impetus to them. Going into the new millennium, there is a new emphasis on self-reliance and freeing itself from over-reliance on India.

Added to this, the lackadaisical implementation of river water treaties has left a bitter taste. Water cooperation between Nepal and India has involved agreements on major rivers like Kosi, Gandaki, Karnali or Mahakali, for large hydroelectric and irrigation projects through building of dams or barrages. However, no project except the Kosi barrage has been completed yet and the smaller rivers have also been ignored. Since 1954, when the Kosi Agreement was signed between India and Nepal, talks between the two governments have stalled and water rights issues have not been addressed.

The water issue had made the bilateral relations bitter even before India's independence. The colonial administration had signed the Sarada Treaty with Nepal in 1920, on the basis of which India constructed the Sarada barrage on Mahakali River after exchanging 4,000 acres of territory. However, people of

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25. "Nepal-India Transit Treaty 1991", Nepal-India Chamber of Commerce and Industry (NICCI), at <http://www.nicci.org/resources/nepal-india-transit1991.php>

26. "Nepal-India joint team inspects ICP Birgunj", *Madheshvani*, October 16, 2017, at <http://www.madheshvani.com/en/details/9492/news>

Nepal considered the treaty being partial to India and became angry over the meagre amount of water allocated to them. After independence, India again pushed Nepal to sign agreements to build Kosi barrage in 1954 and Gandak Barrage in 1959. These India-financed projects in Nepal were increasingly being perceived as a 'sell-out' of the national interest by many in Nepal and has served to be a catalyst for popular opposition to any of India's new projects in Nepal.

Nepal claims that India's handling of the issues involving the Kosi and Gandaki rivers has been far from satisfactory and that the Mahakali agreement has remained in limbo for over two decades. The latter has been delayed due to increasing popular opposition to 'Indian water projects', as well as the failure on India's part to start the Pancheswar dam project under the Mahakali Treaty despite repeated promises.<sup>27</sup> In 2008, the collapse of Kosi's embankment unleashed massive floods, highlighting India's failure to take precautionary measures and its refusal to take responsibility. Further, there have been accounts of widespread resentment towards India's perceived exploitation of Nepal's rich water resources for its own agricultural and energy needs.<sup>28</sup> The 1950 Indo-Nepal treaty of Friendship and Peace established "special relations" between the two countries, but did not set up any overarching principle under which issues like water sharing on transboundary rivers could be worked out.

While the government of Narendra Modi has hit all the right chords in bilateral talks, differences continue on power trade, especially on the issue of pricing of electricity. The perception that Nepal remains India's "client state" will not be helpful to the aims of working towards a higher level of cooperation.

### **THE MILLENNIUM: INDIA'S ENGAGEMENT WITH NEPAL**

Post the year 2000, Nepal continued to receive a huge bulk of India's development assistance and most of it was devoted to connectivity projects

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27. Shawahiq Siddiqi, "India-Nepal Border Plagued by Water Problems", *The Wire*, May 2017, at <https://thewire.in/diplomacy/india-nepal-border-plagued-water-troubles>

28. Ashok Swain, "It is water not China that has ruined Nepal's relations with India", *Outlook India*, April 2018, at <https://www.outlookindia.com/website/story/it-is-water-not-china-that-has-ruined-nepals-relations-with-india/310684>

**A unique initiative of India in Nepal has been the Small Development Projects started in 2003. Through these projects, India hoped to gain a foothold at the grassroots level involvement in Nepal. The project runs on the philosophy of reducing unwarranted overhead costs and ensuring greater stakeholder participation.**

like road, rail and air links. Connectivity projects are crucial since 98 per cent of Nepal's transit trade takes place through India and 65 per cent of Nepal's total trade is with India. So, there is a lot of dependency<sup>29</sup> on India, as far as Nepal's economy is concerned.

A unique initiative of India in Nepal has been the Small Development Projects started in 2003. Through these projects, India hoped to gain a foothold at the grassroots level involvement in Nepal. The project runs on the philosophy of reducing unwarranted overhead costs and ensuring greater stakeholder participation. The SDPs focus on decentralisation by giving a greater role to local bodies in Nepal.<sup>30</sup> The projects under the scheme are implemented

via District Development Committees, which have representation from local officials of the departments concerned, local governments, as well as local community organisations.

In 2004, the total number of SDP projects amounted to 26 and this number expanded to about 510 in 2015.<sup>31</sup> It is interesting to note that the SDP scheme has been scaled up not only in Nepal but has also been extended to other countries in the region. For instance, in 2006, India initiated approximately 50 SDPs in Afghanistan.<sup>32</sup> They are also being implemented in Sri Lanka as part of its development assistance.<sup>33</sup>

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29. Riya Sinha, "The Road from India to Nepal: Development Assistance and Connectivity Projects." Brookings Blog, at <https://www.brookings.edu/2020/04/15/the-road-from-india-to-nepal/>

30. "About Development Partnership", Embassy of India, Kathmandu, Nepal, at <http://www.indianembassy.org.np/>

31. "About Development Partnership", Embassy of India, Kathmandu, Nepal, at <http://www.indianembassy.org.np/>

32. "Third Phase of Small Development Projects (SDP-III) in Afghanistan", Press Information Bureau, Government of India, November 8, 2012, at <http://pib.nic.in/newsite/PrintRelease.aspx?relid=88917>

33. "Visit of External Affairs Minister to Sri Lanka," Ministry of External Affairs, Government of India, February 6, 2016, at <http://www.mea.gov.in/press-releases.htm?dtl/26330/Visit+of+External+Affairs+Minister+to+Sri+Lanka+February+56+2016>

India's efforts to build connectivity networks with Nepal are also happening in larger multilateral frameworks. The South Asian Association for Regional Cooperation (SAARC) framework did not make satisfactory progress in this regard. Regional cooperative efforts resulted in the emergence of platforms, such as the Bangladesh-Bhutan-India-Nepal (BBIN) and the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), or fora which do not include China. The BBIN Motor Vehicles Agreement (MVA) envisages unhindered movement of vehicles between member countries. There are also proposals to usher in a BIMSTEC MVA as well. A BIMSTEC developmental fund has also been floated to account for the infrastructural needs of the region. These MVAs will make it easy for Nepal to access the Bay of Bengal ports. The emergence of such frameworks indicates growing confidence among the member countries on developing connectivity projects and closer regional cooperation.

One of the major turning points in India's relationship with Nepal, however, was the 2015 blockade on the Madhesi issue. This ensured that relations took a turn for the worse, and the biggest beneficiary in this tirade was China. China was able to use this situation to build closer ties with Nepal and parade as an all-weather partner. Here, New Delhi objected to Nepal's new constitution for allegedly discriminating against the Madhesi ethnic people who have close ties to India. Rioting broke out and India imposed an unofficial blockade on imports of fuel and essential supplies at a time when Nepal was already reeling from a recent earthquake. Kathmandu blamed New Delhi for the disruption, and China stepped in with emergency oil supplies. The demonetisation exercise further dented relations between the two countries as Nepal relies greatly on remittances from expatriate workers in India.

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In 2016, tensions were on the rise with Nepal's President cancelling his trip to India and with Kathmandu recalling its ambassador. Further, Nepal's Prime Minister K. P. Oli visited Beijing soon after, to sign agreements on trade and transport. China also offered Nepal access to some of its ports, in order to offset India's importance as Nepal's only route to the sea. More recently, the territorial dispute between India and Nepal which resulted from a road construction project to Lipulekh, signals the need for India to tweak its strategy towards Nepal in order to prevent it from drawing closer to China.

India has increased its share in financial aid to Nepal by 73 per cent from Rs. 375 crore in 2017-2018 to 650 crore for the year 2018-2019.<sup>34</sup> Nepal's share in India's total financial aid was 12 per cent in 2017-2018, which stepped up to 18 per cent in 2018-2019. In the new millennium, India increased aid to Nepal to counter China's vigorous efforts to build up infrastructure projects in its neighbourhood. In this regard, India's parliamentary committee's report clearly spelt out, "China is making serious headway in infrastructure projects in our neighbourhood. Specifying the strategy devised to counter increasing Chinese presence in our backyard, the government is committed to advancing its development partnership with [Bhutan and] Nepal, as per their priorities."<sup>35</sup>

## CHINA AND NEPAL'S ECONOMIC ENGAGEMENT OVER THE DECADES

Nepal's mandate for a pro-China Prime Minister in Oli reflects that this sentiment may run deep. China, on the other hand, is clear on leveraging its economic diplomacy in the region and considers it foundational to its foreign policy.<sup>36</sup> Over 63 years, since the establishment of diplomatic relations between the two countries, economic cooperation, though significant, has

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34. Roshan, "India's aid to Nepal up 73% to check China's infra push," *The Times of India*, March 21, 2018.

35. "India's Financial aid to Nepal up by 73%," *Nepal Foreign Affairs*, March 2018, at <http://nepalforeignaffairs.com/indias-financial-aid-to-nepal-up-73-bhutan-first-nepal-second/>

36. Shawn Ho and Benjamin Ho, "After China's 19th Party Congress—implications for the regional architecture and order," Center for Strategic and International Studies, 2017, at <https://www.csis.org/analysis/pacnet-82-after-chinas-19th-party-congress-%E2%80%93-implications-regional-architecture-and-order>, accessed on July 16, 2018.



gained rapid traction in recent times. In ancient times, economic diplomacy started off as local trade between Tibet and Kathmandu. The first agreement on economic cooperation was the 1956 Agreement on Economic Aid. An Inter-Governmental Economic and Trade Committee (IGETC) was established in 1982 to facilitate trade and investments and became a forum for discussions on economic and technical cooperation. The Nepal-China Chamber of Commerce and Industry (NCCCI) founded in 1999, also promotes engagement between companies and entrepreneurs from the two countries.

The 1960s saw tentative relations between the two countries, with Kathmandu choosing to stay neutral in the face of the 1962 War. Nepal continued to walk the tightrope as it simultaneously pressed for China's membership into the UN, while warning against any aggression, albeit from China, in the region during this time. The only notable economic progress in the 1960s was the construction of the Kathmandu-Kodari road which opened for operations in 1967. Although it did not yield much commercial benefits for Nepal at the time due to severe restrictions on movement imposed by China, it was of strategic importance as it established direct links between two major Chinese army bases to forward bases in Tibet.

The 1970s and the emergence of a strong and confident India introduced a new element to this triad, where Nepal would be able to play off one party against the other in anticipation of a better agreement. However, the 1989 decision by King Birendra to consider an arms purchase from China, had invited a crippling blockade from India. According to India, these negotiations contravened an earlier agreement under which Nepal was to procure all its defence supplies from India.

In 2009, Nepal and China established 'China-Nepal Comprehensive Cooperative Partnership', to heighten bilateral relations. This Partnership led to more frequent engagements between the bureaucracies of the two countries.

Chinese aid to Nepal started as early as 1956, with Nepal being one of the top five countries to receive aid from China in the years spanning

1956-1973,<sup>37</sup> in terms of disbursement. Other countries in the mix included Pakistan, Indonesia, Sri Lanka and South Yemen. A significant aspect in the aid disbursement during this time is the composition of the aid basket. Of the total Chinese aid received, Nepal received the largest share in grants, over and above Pakistan. This can be seen in the Table below:

**Table 1: Aid disbursement by China in South Asia for the years 1956-1973<sup>38</sup>**  
China's Grants as percentage of Aid

	Total Aid committed (US\$ mn)	Of which grants (US\$ mn)	Grants as percentage of total Aid
Nepal	98.7	43.7	44
Pakistan	445.7	110.0	25
Sri Lanka	118.0	26.3	22
Burma	92.4	4.2	5
Afghanistan	76.5	7.0	9

Much of the Chinese investment was in construction, budget stabilisation, repair and maintenance of roads and highways, not unlike today.<sup>39</sup> The roads were seen to serve military objectives by providing China more direct access to the Indian border in the event of further hostilities and justified the presence of Chinese workers in Nepal, many of whom were intelligence or propaganda agents or trained soldiers.<sup>40</sup> Future grants in the 1970s and 1980s have been for energy projects like the Seti dam to generate 1,000 kW for irrigation and energy purposes and the Pokhara water conservancy and irrigation projects. Among the unique characteristics of Chinese aid to Nepal has been the large quantities of consumer goods which are sold by government agencies in Nepal, whose proceeds are used to finance Chinese projects when Nepal was unable

37. In that year, Nepal bagged one-third of China's total aid disbursement. Of the 13 countries in Asia which received Chinese aid during 1956-1973, Nepal ranked fifth. P. K. S Namboodiri, "China's Aid to Nepal in Perspective". Sage, *India Quarterly*, vol. 35, no. 2, (April-June 1979).

38. Ibid.

39. Early projects include Kathmandu-Kodari road, Kathmandu-Pokhara Highway and Pokhara-Surkhet highway, among others.

40. John Franklin Copper, "China's Foreign Aid: An Instrument of Peking's Foreign Policy" (London: Lexington Books, 1976), p. 44.

to meet local costs of aid projects. Chinese aid was also utilised by the Nepali authorities to invite more aid investments from India, the US, and the former Soviet Union.<sup>41</sup>

China's goals in the early 1990s were best outlined in Zhou Enlai's eight principles, which he outlined in his tour of Africa.<sup>42</sup> These were: Economic Aid would be based on the principles of equality and mutual benefit; China would respect the sovereignty of recipient countries and seek no privileges nor attach any conditions; loans must be provided either interest-free or on low interest; aid was not to make recipients dependent on China but to make them self-reliant; aid was to be aimed at projects which require low investment while yielding quicker results; China was to provide best quality equipment and material of its own manufacture at the international market prices; China was to train personnel of recipient countries to acquire full mastery of such techniques; and Chinese technicians to enjoy the same standards of living as their counterparts in recipient countries. Although these goals are merely stated objectives and do not necessarily reflect the ground realities of Chinese Aid, it does go to show how deeply ingrained the Chinese want their aid to be. Money, material, personnel, techniques would all be micromanaged by the Chinese.

An aggressive India forced Nepal to tilt closer to China in the 1970s and by 2004, China had provided more than US\$ 181 million in grants to Nepal and completed around 25 projects. Since then, China's engagements have increased; it has contributed to a host of projects like building the Ring Road, civil service hospitals, optical fibre project, Upper Trishuli 3A Hydropower Station, transmission lines and construction of numerous roads and ports. In terms of the energy sector, China with its strong record of implementing projects, has been able to execute projects like Upper Marsyangdi Hydropower Project, Upper Madi Hydropower Project, among others.

China has been Nepal's largest source of foreign direct investment and second largest trading partner, after India. However, despite China being

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41. B. L. Maheshwari, "Foreign Aid in South Asia" (Unpublished Seminar paper, mimeograph edition), South Asia Studies Centre, University of Rajasthan, 1968, p. 17.

42. Bruce D. Larkin, *China and Africa, 1940-70* (Berkeley: University of California Press, 1971), p. 103.

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**However, despite China being geographically close to Nepal, the tilt in diplomatic relations was more pronounced with the 2015 OBOR Initiative, in which Nepal saw immense gain.**

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#### **THE MILLENNIUM: CHINA'S TRYST WITH THE GLOBAL ORDER AND NEPAL**

In 2006 the trade volume between Nepal and China stood at US\$ 268 million, with 36.5 per cent increase over the previous year. The statistic has doubled in recent years though the trade balance is largely tilted towards China. In the fiscal year

2014-2015 the total trade volume between Nepal and China was NRS.101 billion and in fiscal year 2016-2017 it was above NRS.131 billion. Similarly, there has been massive growth in investment from Chinese private as well as state-owned firms. Although India stands ahead of China when it comes to trade volume, the foreign investment sector has been overtaken by the Chinese business firms.

The biggest development on the foreign aid landscape in these years was China's BRI. The BRI is China's Marshall Plan in the region and was initiated in 2013. It involves a combination of a 'belt' of overland corridors and 'road' of maritime shipping lanes. Apart from being an economic corridor, it is also seen as a strategic tool since the ports and transport infrastructure being built could be utilised for both commercial and military purposes. China would be able to influence shipping routes in the Strait of Malacca, Strait of Hormuz, Gulf of Aden, Suez Canal and the Panama Canal as a result of its endeavours. The BRI is also a method of creating economic dependency amongst the countries involved via debt trap diplomacy. The Centre for Global Development has identified 68 countries as potential borrowers of funds under or due to the BRI.

China has often used debt trap diplomacy<sup>43</sup> to gain strategic concessions from the countries enrolled in BRI, in areas related to the territorial disputes in the South China Sea and in buying silence from countries with regard to human rights violations. There has also been a spurt in the number of arbitration cases between Chinese companies and governments and participating entities on the other side,<sup>44</sup> which goes to show that the initiative may not be in the best interests of the eager participants.

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The creation of the Chinese International Development Cooperation Agency (CIDCA) in 2018 under the broader BRI framework, has given a further impetus to development assistance in Nepal. As of March 2019, the CIDCA has offered to take care of the infrastructural needs of the northern districts of Nepal, which border Tibet Autonomous Region. Chinese aid includes direct development support to local bodies in the 15 districts in Northern Nepal to promote health, infrastructure and education in these districts. China's foray into livelihood missions include the development of three North-South corridors in Nepal, namely, Koshi Economic Corridor, Gandaki Economic Corridor and Karnali Economic Corridor in order to create jobs and improve local livelihood, and stimulate economic growth and development. Further, the upgradation of the technical skill set of those working on rail, road, tunnel engineering and shipping projects, has also been promised by the Chinese.

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43. In 2018 alone, eight Belt and Road countries, including Djibouti, Kyrgyzstan, Laos, the Maldives, Mongolia, Montenegro, Pakistan and Tajikistan, expressed their inability to repay their loans as they faced a serious economic crisis due to the debt distress. These countries owe over half of their total foreign debt to China.

44. The number of arbitrations between Chinese companies and parties involved in BRI stepped up from 12 in 2016 to 38 in 2017. The Chinese have made a provision for courts in Beijing on the model of Dubai International Financial Centre Courts and the International Commercial Court in Singapore to settle disputes related to BRI projects. But it is feared that such courts will hardly be independent and so they might go in favour of Chinese firms. Josephine Ma, "Is this just the beginning of 'belt and road' disputes between China and its partners?", *South China Morning Post*, October 12, 2018.

China has gone on to make investments in connectivity beyond railways and transport. In 2018, a fibre optic link was inaugurated and Huawei also concluded a deal to develop a 4G network.

Involvement in the BRI offers Nepal innumerable opportunities to sharpen its domestic infrastructure. The two sides have already concluded trade and transit agreements, and Nepal is eyeing connections with the Chinese market and oil refineries as well as the global supply chain via Chinese ports. Domestic infrastructure projects include the most recently concluded MoU in June 2018 on the “Cooperation in Railway Project”, to develop a cross-border railway line, as well as the older Kathmandu-Pokhara-Lumbini Railway Project. The two countries signed several MoUs, including one on Investment and Cooperation on Production Capacity, another on Human Resource Development Cooperation, and a third on Economic and Technical Cooperation. China has agreed to “take positive measures to facilitate Nepal’s export to China” and support “product development and post-harvest technology in agro-products”. It wants to tap Nepal’s resources such as “construction materials, water conservation and hydropower and organic agriculture and herbs” and cooperate on production capacity by building economic and trade cooperation zones.<sup>45</sup>

The overall economic framework for the projects undertaken in Nepal, has been institutionalised with the Nepal-China Joint Commission on Economy and Trade. Under its aegis the two sides will establish a working group on investment cooperation and a working group on trade led by secretary/vice minister-level officials to facilitate bilateral investment and trade.

In terms of investments in the energy sector, China has been involved in several hydropower projects. Nepal lacks the capital and technology to build large dams and other water projects and also needs a buyer for its hydropower. In 2019, Nepal’s Hydroelectricity Investment and Development Company Ltd. (HIDCL) and Power China have entered a joint venture to build two hydropower projects in Nepal. The projects are the 762 MW Tamor Project and the 157 MW Madikhola Project. In November 2019 Nepal’s Prime

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45. Joint Statement between Nepal and the People’s Republic of China, op. cit.

Minister inaugurated a China-funded 60 MW hydropower project which had started producing electricity recently. Known as the Upper Trishuli 3A Hydropower Project, it was developed by the state-owned Nepal Electricity Authority (NEA), and constructed by China Gezhouba Group Company. During the inauguration of the project, the Prime Minister of Nepal was particular to mention that the project would help reduce electricity import from India and promote industrialisation and modernisation of agriculture by increasing the use of electricity.<sup>46</sup>

While China does not have people-to-people interactions on par with India, it has a long history of deploying overseas assistance to Nepal. Recently proposed Chinese projects such as a railway line connecting Tibet with Kathmandu, will have significant geopolitical and geo-economic implications for India. China has also announced scaling up road networks into Nepal. It has also proposed multilateral frameworks, such as the China-Nepal-India corridor and Trans-Himalayan Developmental Cooperative Framework, wherein Nepal assumes a central and important position. However, the Chinese connectivity projects need to overcome two challenges. Firstly, the economic viability of these projects is contingent on their ability to access the Indian market. Secondly, they will have to be constructed across the Terai region, which enjoys a close sociocultural relationship with India.

China has even made forays into the religious domain, despite Nepal's Hindu majority. It has invested millions into funding universities, temples and even an international airport, in Lumbini, the birthplace of the Buddha. It has even tried to co-opt Tibetan Buddhism in Nepal, as a part of a larger campaign to marginalise Tibetan separatists led by Dalai Lama. Nepal, on its part, has taken reciprocal measures such as banning the country's 20,000 or so Tibetan Buddhists from celebrating the Dalai Lama's birthday in Kathmandu in 2019.

Xi Jinping's visit to Nepal in October 2019 was hailed by many scholars as a new era in Nepal-China relations. On October 12, 2019 the Nepalese

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46. "Nepali prime minister inaugurates China funded hydro project in Nepal". Xinhua, Asia and Pacific, at [http://www.xinhuanet.com/english/2019-11/18/c\\_138564821.htm](http://www.xinhuanet.com/english/2019-11/18/c_138564821.htm)

President and the Chinese Premier announced a new nomenclature for designating intracountry relations. "Nepal-China Comprehensive Partnership of Cooperation Featuring Everlasting Friendship" was to be elevated to "Strategic Partnership of Cooperation Featuring Everlasting Friendship for Development and Prosperity."<sup>47</sup> The strategic partnership has several implications for Nepal's democracy, development and governance. It effectively implies that Nepal is aligning itself with the four-point blueprint brought out by Xi Jinping to integrate each other's security and economic development. The four points highlighted by him in an authored article in Nepali newspapers, prior to his October visit, included deepening strategic communication, broadening practical cooperation, expanding people-to-people exchanges, and enhancing security cooperation.

Ahead of Xi Jinping's visit in October 2019, the popularity of "Xi Jinping thought" amongst the Nepalese bureaucracy was manifest. Officially called "Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era", the doctrine is enshrined in both state and party constitutions, and is seen as Xi's blueprint for a modern China, laying out the roadmap for the next 30 years. This involves goals such as eradicating poverty, building a world-class military and bolstering its markets. In China this thought was mobilised via dissemination through schools, newspapers, television and mobile apps. The influence of China's ideology and form of governance in Kathmandu is hard to miss, with the Prime Minister and bureaucrats frequently making statements in favour of closer ties and attending training programs on Xi Jinping Thought.<sup>48</sup>

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47. Joint Statement between Nepal and PRC, October 2019, at <https://mofa.gov.np/joint-statement-between-nepal-and-the-peoples-republic-of-china-2/>

48. A closer look at "Xi Jinping Thought" shows that at the heart of the political doctrine lies Xi's ambition to bolster his own authority inside China by celebrating nationalism and consolidating power, something that Oli himself did in the last election. Further, China is steadily expanding its footprint in Nepal not only through joint military programmes and by teaching Mandarin in Nepali schools, but also through training and grooming the country's bureaucracy, at <https://www.outlookindia.com/newscroll/nepals-ruling-party-currying-favour-with-xi-jinping-thought/1627671>



## **FROM ECONOMIC THINKING TO STRATEGIC THINKING: WHERE DO THESE INVESTMENTS FEATURE IN CHINA AND INDIA'S GRAND SCHEME OF THINGS?**

A close examination of the recent status of strategic partnership and the four-point blueprint referenced before, highlight a few indicators to explain the current status of ties between China and Nepal. Among the four points mentioned are strategic communication, practical cooperation, people-to-people exchanges and security cooperation. Strategic communication implies a focus on more high-level exchanges as well as engaging on ideas about governance and development. An intensification of exchanges between the government ministries and departments indicates that China may be interested in shaping Nepal's governance and development process. This would negatively affect Nepal's strategic autonomy at the opportunity cost of greater efficiency.

Practical Cooperation implies hastening the Trans-Himalayan Multi-Dimensional Connectivity Network as well as business investment in four priority cooperation areas of trade and investment, post-disaster reconstruction, energy, and tourism. This is, in effect, a form of development cooperation as vital security components such as ports, roads, railways and aviation come within the framework of the Trans-Himalayan Multi-Dimensional Connectivity Network.

Expanding People-to-People Exchanges in areas like education, youth, tourism appears to be a part of China's long-term soft power strategy to build cultural ties. Tourism is also seen by Nepal as a practical way to relax the trade deficit in the near future.

Enhancing Security Cooperation covers a wide ambit for China in Nepal. It does not merely involve defence cooperation but also involves building law enforcement capacity, including border defence and information exchanges.

These four principles fit in well with the Chinese model of assistance post the Deng Xiaoping era which moved on from the ideological idealism of the Mao model. The former is driven by the need to find markets for manufactured goods from China, exploitation of natural resources and raw materials from abroad, generation of employment for

**One of the recurring issues China has with countries across the world is a trade balance in its favour. Nepal is no exception. Bilateral trade between China and Nepal reached US\$ 1.1 billion while Chinese investments exceeded US\$ 300 million in 2018-2019.**

Chinese nationals, technical cooperation and promotion of Chinese commerce. This is one of the reasons why, in the graph on export destinations of Nepali products, China cuts a sorry picture, as opposed to India. It seeks markets abroad, and not the other way round.

A few points of contention remain in the Nepal-China relationship. One of the recurring issues China has with countries across the world is a trade balance in its favour. Nepal is no exception. Bilateral trade between China and Nepal reached US\$ 1.1 billion while Chinese investments exceeded US\$ 300 million

in 2018-2019. Particularly after enhanced connectivity with China through Rasuwagadhi border, the trade imbalance has only deepened. While imports from the Rasuwagadhi transit have more than doubled in the last year to Rs. 43.24 billion, Nepal's export has dropped 25 per cent to Rs. 1.16 billion. China has tried to assuage Nepal's fears on account of this situation by offering Nepal the chance to sell specialty products by participating in its International Import Export Expo. However, Nepal does not have the infrastructural capacity to scale up its products to bridge the trade deficit. Further, Nepal has also not been able to gain any concessions to promote exports to China. Opening up and enhancing communications further still leaves this problem unaddressed.

China's engagement in Nepal has been outlined as a form of 'security diplomacy', which implies a focus on securing its people and assets on foreign territory.<sup>49</sup> This outlines a priority to Chinese interests on foreign soil and aligns with the previously discussed Chinese model of development.

India, like China, has defined its aid/grant and concessional Line of Credit (LOC) in an altruistic manner as serving 'mutual interests', based on priorities 'defined by the partner'. The importance of aid in Indian diplomacy

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49. Manish Kumar Jha, "Diplomacy: Power Play in Nepal", in *Business World*, December 23, 2019.

was reiterated by the Cabinet Committee on Economic Affairs which states that the LOC is part of diplomatic strategy to promote India's interest and is used to generate goodwill.<sup>50</sup> Indian aid is mostly aimed at its immediate neighbourhood, which is considered as the first circle of its security perimeter and has a direct bearing on its stability. Although it does not explicitly cite democracy as a concern for investment or interference, its aid programme in Nepal has, on certain occasions, involved a strings-attached approach. The 1989 and 2015 blockades are examples of this. Further, India's anxiety about external presence in the neighbourhood has compelled India to identify with certain political parties and regimes. This has not panned out well for India as it has allowed several classes of elites such as the Pahari community to view India as partisan, and thus resort to Nepali nationalism in opposition to dependence on India.<sup>51</sup>

**Indian aid is mostly aimed at its immediate neighbourhood, which is considered as the first circle of its security perimeter and has a direct bearing on its stability.**

Concerns with India's development diplomacy in Nepal include a poor record of project completion. Although the charge against India not completing the proposed projects is a serious point to ponder, there is also the matter of Nepal delaying certain projects on account of China. Similarly, India completed work on the 34-km Jaynagar (Bihar)-Kurtha (Nepal) rail line in 2018 but it is yet to be operated. The same is the case with many other key connectivity projects initiated by India wherein Nepal has yet to begin acquiring land. A 200-km rail link from Raxaul in India to Nepal's capital Kathmandu proposed by Prime Minister Narendra Modi during his 2019 Nepal visit has proved to be a non-starter. Thus, bureaucratic hurdles on both sides have been responsible for the overall picture.

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50. Press Information Bureau, Government of India, Cabinet Committee on Economic Affairs (CCEA), "Extension of the Indian Development and Economic Assistance Scheme", November 18, 2015, at <http://pib.nic.in/newsite/PrintRelease.aspx?relid=131605>

51. Smruti Pattanaik, "India's Policy Response to China's Investment and Aid to Nepal", *Strategic Analysis*, 43:3, 240-59, DOI: 10.1080/09700161.2019.1616372

Delaying tactics have thwarted key Indian water projects as well—the Budhi Gandaki hydropower project and the proposed Pancheshwar dam on the Mahakali River along the India-Nepal border are among a few. India has been looking to augment its irrigation and drinking water needs as well as develop Nepal's rich river water resources to produce hydropower for its growing economy.

The Indian side is quick to weigh in on its cultural links with Nepal as and when it seeks to gain leverage over China. For instance, to reaffirm the shared cultural heritage between India and Nepal, Narendra Modi was the first Indian prime minister to visit the Sita temple in Janakpur in the Terai region. He also planned a visit to Muktinath in the northern part of Nepal, which is revered by both Hindus and Buddhists. By his gestures of visiting cultural destinations in Nepal's south as well as north, Prime Minister Modi emphasised the depth of cultural linkages between the two nations.

India should take note of the rapid socio-economic changes that are taking place in Nepal and tailor its development assistance accordingly. It is possible that the advantages bestowed by connectivity projects implemented in the early 1960s by India may have started to taper off. Regular project assessments and upgrades need to be carried out on existing infrastructure. India needs to be able to assess its progress regularly in order to bring about sustained change.

There is a need to increase the number of ports for trade and also increase third-country trade options for Nepal to provide greater choice to Nepalese traders and, more importantly, also bring greater efficiencies. The possibility of accessing more ports in India, particularly in the South, requires serious consideration.

The prospect of trilateral cooperation has been explored many times but it remains confined to discussions and meetings and has not been able to see the light of day. During Modi's 2018 visit to Wuhan, China, for an informal summit with President Xi Jinping, both leaders agreed that they should collaborate in third countries such as Afghanistan. Will India and China also collaborate to build connectivity projects in Nepal? It is doubtful

at the moment. In addition to traversing the Himalayas, such collaboration would also have to overcome a mountain of distrust.

## **BHUTAN**

### ***Bhutan's Economy: How Dependent Is It on External Assistance?***

Bhutan, like Nepal, is a landlocked country that has to deal with two powerful neighbours in the form of China and India. However, Bhutan unlike Nepal still continues to be overwhelmingly dependent, both economically and diplomatically, on India. It has not had its share of watershed moments like Nepal, which made the latter lean towards China. Bhutan has also not been adept at playing the two rivals against each other in order to reap dividends. However, fissures among Bhutan's political brass are growing and it is only a matter of time before Bhutan chooses to diversify its markets and allies.

Bhutan's economy is based on agriculture, which employs the highest share of population, and small industries. This is not unlike Nepal, as seen earlier. However, the contribution of the agricultural sector is going down while the employment in the agricultural sector remains high at over 54 per cent.<sup>52</sup> This may imply issues of disguised unemployment.

Its main source of revenue is the sale of electricity to India. The country has a sustained growth due to the development of the hydroelectric sector and the dynamism of the tourism sector. India has even chosen to finance most of Bhutan's hydroelectric power plants, in exchange for power imports.

The biggest indicator of dependence on the Indian economy is that inflation is closely linked to the Indian economy as Bhutan's domestic currency Ngultrum is pegged to the Indian Rupee. Inflation rate remained stable in 2019, at 2.6 per cent, against 2.7 per cent in 2018, but is expected to rise further to 3.5 per cent by 2021 as the rupee loses value against major international currencies and food prices rise in the country.<sup>53</sup>

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52. World Bank Data, at <https://www.worldbank.org/en/country/bhutan/overview#1>

53. Country Risk Analysis, Society Generale. March 2020, at <https://import-export.societegenerale.fr/en/country/bhutan/economy-country-risk>

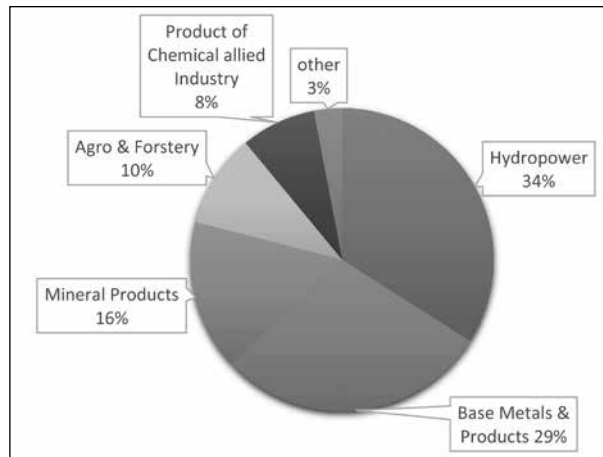
There are several pressure points in the economy. Among them is the absence of a robust private sector. The private sector in Bhutan is in its early stages of development. Its potential to engage in sectors that are currently dominated by the state is yet to be realised with an appropriate regulatory and policy environment. This remains an area for potential investment and engagement for India.

There are also several difficulties when implementing development projects concerning infrastructure in this region which is characterised by steep mountains and deep valleys. The population here has aligned itself in scattered population settlement patterns and thus projects run into difficulties of financial viability.

Further, although Bhutan has shown improvement in several socio-economic indicators such as poverty alleviation and access to piped drinking water and electricity, its staggering youth unemployment rate of 10.6 per cent causes discontent. The overall unemployment is low but high youth unemployment reflects Bhutan's challenge to create more and better jobs. Although India has provided a line of loans and grants, Bhutan is seeking greater investments. It has also been trying to shed its tag as one of the world's least developed countries.

Bhutan's economy continues to be dominated by hydropower and its economic relationship with India. Growth is estimated to have rebounded to 5 per cent in FY2019 after a deceleration to 4.6 per cent in FY2018 due to maintenance and on-boarding delays on two major power plants (Tala and Mangdechhu). This reflects an uncomfortable dependence on hydropower exports to boost its economy.

**Fig 3: Bhutan Export Composition. It reflects an Overwhelming Dependence on Hydropower Exports<sup>54</sup>**



Approximately 90 per cent of Bhutan's imports are from India and the latter is known to be closely involved in Bhutan's economy. For instance, the current account deficit of the last fiscal year was primarily financed through capital inflows from India. Bhutan also has a large and growing trade deficit with India due to its import dependence. India is deeply involved in Bhutan's economy, having made large contributions towards the revenue side of Bhutan's Five-Year Plans, over the years.

Diversification into non-hydropower sectors remains the key challenge to accelerating job creation in non-farm sectors for Bhutan. Maximising the growth potential of the tourism sector could significantly contribute to jobs and income growth, especially among the rural poor and low-skilled. As poverty is almost exclusively rural, efforts to develop agribusinesses and increase agricultural productivity will need to continue, by investing in the downstream value chain. Thus, external assistance would go a long way in expanding the robustness of its economy and keeping up with new demands.

54. Source: Tandin Wangchuk. "Bhutan's Economic Vulnerability: Policy challenges and Recommendations", Regional Capacity Building Workshop, Thimphu, November 2017, at [https://www.unescap.org/sites/default/files/Presentation\\_ESCAP\\_Tandin%20Wangchuk.pdf](https://www.unescap.org/sites/default/files/Presentation_ESCAP_Tandin%20Wangchuk.pdf)

**India is Bhutan's largest development partner and Bhutan is the highest recipient of India's overseas aid. Bhutan received from India a total of US\$ 4.7 billion in grants between 2000 and 2017. The composition basket of development assistance to Bhutan consists of a considerable amount of grants as opposed to loans.**

#### **INDIAN ENGAGEMENT WITH BHUTAN OVER THE YEARS**

The development cooperation between the two countries can be effectively divided into three significant waves.<sup>55</sup> The first wave (1960s-1970s) focused on building the social and physical infrastructure. The second wave (1980s-1990s) saw substantive efforts towards democratisation and decentralisation. The third wave of the relationship (1990s onwards) focused on developing hydel projects, which has now expanded into other areas such as information technology, disaster risk management, education and research cooperation.

India's contribution to Bhutan's socio-economic development began in 1961 with India funding Bhutan's entire first (1961-1966) and second (1967-1972) Five-Year Plans. India is Bhutan's largest development partner and Bhutan is the highest recipient of India's overseas aid. Bhutan received from India a total of US\$ 4.7 billion in grants between 2000 and 2017.

The composition basket of development assistance to Bhutan consists of a considerable amount of grants as opposed to loans. India's share of grants in the 11th Plan period (2013-2018) was 74.54 per cent and the share of the rest of the donors stood at 25.46 per cent. India's share in grants received by Bhutan increased in the latter's democratic transition, while the share of other donors (excluding India) saw a decrease in the same period. Although contributions have seen an increase in absolute terms, there has been a slowdown in the rate of increase in allocations to Bhutan. This is primarily because of India's need to diversify its development assistance, especially to the Indian Ocean states. This has paralleled Bhutan's desire to increase the diversity of its donors as well.

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55. Medha Bisht, "India-Bhutan Relations: From Development Cooperation to Strategic Partnership", 2010, *Strategic Analysis*, 34:3, 350-53.



Bhutan's trade with India is guided by the Agreement on Trade, Transit and Commerce signed in 1972 (and renewed every 10 years since then). India has always been Bhutan's largest trading partner. In 2001, about 94 per cent of Bhutan's exports and 78 per cent of its imports took place with India. In 2018, India's share in Bhutan's exports was 72 per cent, and in imports, 84 per cent.

India is also the biggest source of Bhutan's Foreign Direct Investment (FDI). From 2002, when the Himalayan Kingdom allowed FDI into the country, India had the maximum 51 per cent share in the total FDI in the country. The other major sources of Bhutan's FDI are Singapore and Thailand. Between India and Bhutan, a total of 73 projects have been approved by the end of 2018 out of which 64 have begun commercial operations.

In terms of the commodities of import from India in the period from 2004 to 2018, machinery, mechanical/electrical appliances and equipment, base metals, mineral products inclusive of oils and fuels, transport vehicles, aircraft and engines were key components. Most of these imports were on account of construction of huge hydropower projects. The sectors of investment for India have been road and air transport, revenue support for the five-year plans, hydel power projects, industries, animal husbandry and telecommunications projects. In 1959 India offered to build Bhutan's first motorable road from Phuentsholing near the Indian border to the country's capital Thimphu, a distance of some 175 km.<sup>56</sup> The Border Roads Organisation has also created a network of roads in Bhutan under Project Dantak.

Hydropower has always been the major source of electricity generation in Bhutan. Cooperation with India began in 1988, with the commissioning of the Chukha hydropower plant that was funded with 60 per cent grant and 40 per cent loan assistance at a low interest rate of 5 per cent. Similarly, the

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56. Sukhdev Shah, "Developing Bhutan's Economy: Limited Options, Sensible Choice", *Asian Survey*, no. 8, August 1989, p. 816.

Tala hydropower project and the Kurichhu plant were both built by India in a 60:40 grant to loan ratio. The Punatsangchu-II and Mangdecchu projects were built with 70:30 loan to grants ratio in 2010, thus gradually increasing Bhutan's debt burden. However, the change in financing pattern was owing to Bhutan's increased capacity for repaying loans through revenues generated by electricity trade. Loans disbursed by India to Bhutan were self-liquidating in nature, i.e., such loans are to be repaid only through revenue earned by electricity exports from Bhutan.

Hydropower is also a source of friction between the two countries. Bhutan exports 70 per cent power to India, forming about 20 per cent of Bhutan's gross domestic product. Although bilateral trade between India and Bhutan is US\$ 516 million, much more than with China—with which Bhutan's trade is just US\$ 10 million—Bhutan's trade deficit with India is over US\$ 150 million. However, even with the prospect of energy cooperation, the terms of the hydropower agreements are seen as unfair by Bhutanese policymakers. Indian engagement, however, faces a significant challenge with the new Bhutanese government's desire to slow down new hydropower projects in order to soften the country's rising debts. India is the largest buyer of Bhutanese hydropower and has significant investments in this sector. Eighty per cent of the projects under construction in Bhutan, are financed by Indian entities. Bhutan is currently contemplating diversifying its energy basket in order to become more self-reliant. India needs to step in and fill the void in energy resources—before China does.

Other irritants in the economic relationship between the two countries include the continuous engagement of India in Bhutan's foreign affairs, which has irked many quarters in Bhutan. The lack of diplomatic ties with China at the behest of India signals an affront to the sovereignty of Bhutan, in the eyes of many people. Further, the lack of relations is also a hindrance to smooth border settlement talks between Bhutan and China.

A recently resolved point of contention in 2007 was the amendment of the 1949 Treaty of Perpetual Peace and Friendship. It did away with Bhutan

being required “to be guided by the advice” of India in the conduct of its foreign policy or seek its “approval” on arms purchases. Thus, the 2007 Treaty of Friendship brought into their relationship an element of equality. It requires both countries to not allow the use of their “territory for activities harmful to the national security and interest of the other”. However, India’s behaviour has at times not been conducive to creating an environment of equality between them. For instance, it withdrew fuel subsidies from Bhutan due to the meeting of Bhutan’s then Prime Minister Jigme Thinley and Wen Jiabao on the sidelines of the Rio+20 Summit. During this meeting, Jigme Thinley expressed the desire to establish diplomatic relations with China, which was echoed by Wen Jiabao.

Bhutan, however, as a gesture of goodwill towards India, has refrained from accepting the package deal that China offered it in 1996 to settle the border dispute. Under this deal, China was reportedly willing to give up claims on Jakurlung and Pasamlung Valleys in north-western Bhutan in exchange for Bhutan relinquishing control over Doklam. Accepting this deal would give Bhutan settled borders. Yet, in deference to India’s security concerns, Thimphu has not accepted this deal as yet.

China’s manoeuvres in the region also include contributing significantly to the tourism sector in Bhutan, which is the country’s second largest economic contributor to Bhutan’s GDP. There has been a significant increase in Chinese tourists in Bhutan over the past decade.<sup>57</sup> The sudden drop in tourists post the Doklam stand-off was a signal to Bhutan on the losses it could incur if it chose the Indian side over the Chinese side.

It is worth noting that despite the lack of diplomatic relations, high-level visits have continued between the two countries. In fact, China has conducted frequent high-level visits to Bhutan after the stand-off over Doklam between China and India in June 2017. In July 2018, Vice Foreign Minister Kong Xuanyou toured Bhutan to push forward the boundary negotiation as well as economic cooperation with Bhutan, followed by Chinese ambassador to India, Luo Zhaohui’s Bhutan trip.

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57. Kashish Kumar, “India Losing its grip of Bhutan?”, *Modern Diplomacy*, South Asia, July 5, 2019, at <https://moderndiplomacy.eu/2019/07/05/india-losing-grip-of-bhutan-china-on-the-edge/>

Although Bhutan has not yet built diplomatic relations with China, it has not taken a hostile attitude towards China. Conversely, Bhutan supported China's efforts of resuming her legal seat in the United Nations and adheres to the One China principle, including on Taiwan, Tibet and Xinjiang issues.

### **CHINESE ENGAGEMENT WITH BHUTAN**

Bhutan remains the only country amongst India's neighbours to not join the BRI. China and Bhutan share 470 km of unfenced borders but do not have official diplomatic relations. Bhutan is proximate to the Siliguri Corridor, a narrow strip of land linking mainland India with its eight north-eastern states, including Arunachal Pradesh, which China claims as "South Tibet".

Bhutan has emerged as the latest beneficiary of Chinese soft power, with China making quiet inroads into it, at India's expense. For long, the traditional irritants in China-Bhutan relations such as the unresolved border dispute between the two, have kept them apart.<sup>58</sup> Chinese shipments have shot up in the past decade, with goods from machinery and cement to electrical appliances and toys being imported, making Beijing the third largest source of foreign products to a heavily import-dependent Bhutan.

Chinese outreach to Bhutan has been through sports, religious and cultural visits, as well as via scholarships to Bhutanese students. Frequent high-level exchanges have also taken place between Chinese and Bhutanese dignitaries.

Public perception has also shifted to a demand for loosening India's stranglehold on Bhutan. The government is also facing pressure from the private sector to establish economic relations with Nepal. Bhutanese experts recently attended seminars in China in fields like security and development of small hydropower. Chinese experts have been visiting Bhutan to identify sectors of cooperation in disaster management and environment conservation audit policy.

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58. The four major areas of dispute between Bhutan and China include Doklam, Gamochen to Batangla, Singhela and Amo Chhu.

China's strategy towards Bhutan in the earlier years had combined aggressive military posturing with diffusing of diplomatic tensions soon after. In 1966 for instance, the Chinese troops entered Doklam and China extended its claim to about 300 square miles of north-eastern Bhutan and to areas north of Punakha. China followed this up with strongly supporting Bhutan's membership of the UN in 1971. Similar incursions were again seen in 1979. What is of strategic importance to China in this region, is the Chumbi Valley. This vital trijunction between Bhutan, India and China is significant as it is hardly 50 km from the Siliguri corridor—the chicken's neck which connects India to North East India and Nepal to Bhutan. The North-Western areas of Bhutan which China wants in exchange for the Central areas lie next to the Chumbi Valley trijunction.

From China's point of view, resuming trade with Bhutan is part of an overall strategy in the Himalayas, which has been framed in the global context of the development of China's western provinces. The resumption of trans-Himalayan trade is a key element of that strategy. Another aspect to be considered in Bhutan's China policy concerns the resumption of religious links between Bhutanese and Tibetan monasteries.<sup>59</sup>

Nevertheless, the most important geopolitical consideration for China in keeping Bhutan engaged, remains India. The approach of Beijing over the last five decades has been to minimise the role and importance of India in Bhutan. By consistently refusing to accept any Indian advocacy for Bhutan coupled with the "pressure tactics of border incursions", the Chinese have brought Bhutan to the negotiation table even though they have been unsuccessful in making deep inroads in it.<sup>60</sup> Thus Bhutan could be important for China in furthering its strategic depth against India's North-East and in restraining the Tibetan issue from spilling over into Bhutan.

China has kept its movements in Bhutan limited. This indicates that China fully takes into account the existing geographical and economic limitations of Bhutan. China realises the extent to which Bhutan can go against

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59. Rajeesh CS, Ashwati CK, "Bhutan's China Policy", *South Asia Journal*, April 19, 2018.

60. J. Mohan Malik (2001). "South Asia in China's Foreign Relations". *Pacifica Review*, 13(1): 73-90, at [http://sga.myweb.uga.edu/readings/sa\\_in\\_chinas\\_fr.pdf](http://sga.myweb.uga.edu/readings/sa_in_chinas_fr.pdf), accessed on April 26, 2020.

**China realises the extent to which Bhutan can go against India, and definitely does not expect it to overwhelmingly lean towards China in the near future. However, it aims at neutralising Bhutan in the wake of any political or military conflict with India and use it as a base to further trade and commerce in Tibet and the rest of South Asia.**

India, and definitely does not expect it to overwhelmingly lean towards China in the near future. However, it aims at neutralising Bhutan in the wake of any political or military conflict with India and use it as a base to further trade and commerce in Tibet and the rest of South Asia. It might expect Bhutan to look up to China as an effective and reliable counterbalance to contain the inevitable Indian domination.

#### **CONCLUSION: HOW SHOULD INDIA SHAPE ITS FOREIGN POLICY IN THE REGION?**

This appears to be a difficult time in the neighbourhood for India. According to external affairs minister S. Jaishankar, India-China ties are currently in the most difficult phase in the last 30-40 years. The neighbours, Nepal and Bhutan, are caught in the quagmire with constant flare-ups concerning one or the other country. Bhutan has refrained from upsetting its neighbours but has constantly faced pressure from the Chinese to rethink its stance on the BRI and its relationship with China. In October 2020 US satellite imagery showed Chinese construction activity on the Bhutanese side of the disputed border and soon after in November 2020, Bhutan's Satkeng wildlife sanctuary was claimed as 'disputed' by China. On the Nepalese side, relations have witnessed a pro-China tilt with Nepal publishing its map incorporating 300 sq km of Indian territory. Between India and China itself, the Ladakh stand-off seeks to endanger not only political but also economic ties. However, even amidst the diplomatic pressure, long-term engagement must not be forgotten. Economic relationships between countries affect the common man, and he/she stands to lose the most from an inward looking or isolated neighbourhood.

With regard to promoting economic growth, a strategy that the Indian government can develop in Nepal and Bhutan is a 'growth-pole strategy'.<sup>61</sup> The concept implies that growth cannot appear everywhere and at the same time. Governments often spread thin their resources by trying to ensure equitable development. While this can be the strategy for national governments, India can adopt a different approach. Growth becomes manifest in certain areas or poles and this growth, if strong, could propel economic growth through the whole economy. Some regions have economic and demographic advantages which can be propelled through agglomeration. This was evident in the Japanese development strategy in Myanmar. It established the Thilawa Special Economic Zone near Yangon and this automatically improved transport networks between Yangon and Mandalay. Similarly, the Indian government should also consider the possibility of the growth-pole approach when planning its development assistance. Two urban centres can be identified and developed as growth poles, and this might also help to address concerns about regional inequality. This would result in development of connectivity projects being supplemented by development efforts which aim at improving human development indicators and the industrial/service sectors as well. There is a need to explore the possibility of greater convergence between schemes implemented.

**Indian government should also consider the possibility of the growth-pole approach when planning its development assistance. Two urban centres can be identified and developed as growth poles, and this might also help to address concerns about regional inequality. This would result in development of connectivity projects being supplemented by development efforts which aim at improving human development indicators and the industrial/service sectors as well.**

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61. Elżbieta Wojnicka-Sycz, "Growth-Pole Theory as a Concept Based on Innovation Activity Development and Knowledge Diffusion", Faculty of Management and Economics, Gdańsk University of Technology, at [https://zie.pg.edu.pl/documents/30328766/30681540/REME\\_6\\_%283-2013%29-Art2.pdf](https://zie.pg.edu.pl/documents/30328766/30681540/REME_6_%283-2013%29-Art2.pdf)

Building a robust business climate between the two countries is important. The possibility of joint ventures (Indian/Nepalese firms), as identified in the 2016 Terai MoU, can be given a renewed emphasis. This also applies in the case of Bhutan. Improving the business climate by greater engagement with Indian companies, especially at the small-scale level, could help improve people-to-people interactions as well.

Increasing capacities of Indian Missions should also be explored. There is a need to increase the technical capabilities at the Indian Embassy in Nepal and Bhutan. For example, the number of civil engineers could be increased to ensure greater quality of monitoring and evaluation. Since Nepal and Bhutan are receiving significant development assistance from India, there is a need to create adequate workforce at the Indian mission.

The COVID-19 situation is a new opportunity for India to make the best use of its soft power diplomacy. The 6th Nepal-India foreign ministers meet is scheduled to take place on January 14, 2021 with Nepal showing a greater inclination towards buying Indian vaccines. This opportunity should not be lost in fostering closer partnerships in healthcare.

China and India's areas of assistance and investment are very similar in the case of both Bhutan and Nepal. However, India enjoys the advantage of longer and more sustained cooperation over decades. Even in unpredictable geopolitical situations, it will be India's strong grassroots operations and people-to-people connections which will prevent tensions from escalating beyond a point. India looks to fight a battle on two fronts: one of competitiveness of economic assistance, and the other the ideological perception war. China's aid giving practices give off the perception of a horizontal partnership and equal power dynamic, though it comes with unmistakable geopolitical ambitions.



# THE ISLAMIC STATE IN KHORASAN PROVINCE: UNDERSTANDING ITS PRESENCE

SAURAV SARKAR

## INTRODUCTION

The terrorist group known as the Islamic State Khorasan Province (ISKP), the Afghanistan-based affiliate of the Islamic State, has in recent months suffered a series of large-scale setbacks and losses. These losses have included the surrender of several hundred fighters and their dependents, the killings and capture of multiple mid and top-level leaders including two emirs this year, and losses of territorial bases and financial resources.<sup>1</sup> However, recent attacks attributed to/claimed by ISKP, propaganda activities, the presence of foreign terrorist fighters (FTFs) and cross-border activities and linkages show that it is still too early to say that ISKP is defeated in the conventional sense.<sup>2</sup>

ISKP seems to have gone through an organisational reshuffling in recent months after the arrests of two of its emirs in April and May respectively. The

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1. Amira Jadoon and Andrew Mines, "Can the Islamic State's Afghan Province Survive Its Leadership Losses?", *Lawfare*, May 17, 2020, at <https://www.lawfareblog.com/can-islamic-states-afghan-province-survive-its-leadership-losses>, accessed on May 23, 2020.
2. *Washington Post*, "Afghanistan claims the Islamic State was 'obliterated.' But fighters who got away could stage a resurgence", February 9, 2020, at <https://www.washingtonpost.com/world/2020/02/09/afghanistan-claims-islamic-state-was-obliterated-fighters-who-got-away-could-stage-resurgence/?arc404=true>, accessed on April 10, 2020.

**The cross-border activities of ISKP in terms of movement, logistics and operations from Afghanistan across the border in Pakistan—and to a lesser extent in Central Asia—is another point of concern along with being a major source of sustenance for ISKP to mitigate its losses and finding alternative sources of funding and safe havens.**

present ISKP leadership is believed to be strongly influenced by FTFs from Iraq and Syria and some of the battlefield tactics and operational security seen in the Middle East seem to have been applied in Afghanistan in its recent operations. To what extent FTFs may salvage ISKP's capabilities in Afghanistan in the short-term is yet to be ascertained fully, however, if increasing numbers of FTFs from the South and Central Asian nations join ISKP then it would present a significant security challenge in the long term.

The cross-border activities of ISKP in terms of movement, logistics and operations from Afghanistan across the border in

Pakistan—and to a lesser extent in Central Asia—is another point of concern along with being a major source of sustenance for ISKP to mitigate its losses and finding alternative sources of funding and safe havens. Furthermore, its linkages with regional groups in Pakistan and Central Asia both aid its operations and at the same time oppose them when ISKP's activities clash with their interests and power base. Also, the establishment of so-called sub-affiliates of ISKP in Pakistan and India (which seem to have become semi-autonomous extensions of ISKP) in May 2019 is an attempt by ISKP to increase its regional clout in South Asia to exploit the various socio-political faultlines for its propaganda and recruitment. However, this is wrought with multiple challenges, given the relatively stronger counterterrorism (CT) mechanisms in place and resistance from established terrorist groups in the region.

ISKP's recent losses are bound to usher in changes to its internal structure and functioning—or at the minimum an introspection—of its ongoing operations and strategies amongst the leadership and any overseas controllers. Whether recent developments may have brought in certain changes in its organisational structure or how it may look to adapt in light of its recent losses

merits some discussion in this regard. ISKP may carry out certain changes in its activities to rebuild its capabilities and status to try to survive and remain relevant in the long term by carrying out a lesser number of attacks but of a higher profile. At the same time it may seek to carry out newer recruitment strategies to fill in the manpower gap caused by the deaths and surrenders of its fighters and seek out sources of funding. Whether there has been any impact on recruitment and changes in tactics because of leadership decapitations and territorial losses, will be looked into as well in this article.

**ISKP's setbacks and losses have been in large part due to a mix of conventional and sub-conventional CT operations by the US military and Afghan security forces. The Taliban's offensives in eastern and northern Afghanistan against ISKP also helped dislodge ISKP from their bastions on the ground.**

ISKP's setbacks and losses have been in large part due to a mix of conventional and sub-conventional CT operations by the US military and Afghan security forces. The Taliban's offensives in eastern and northern Afghanistan against ISKP (which had directly and indirectly been aided by the US military's anti-ISKP operations) also helped dislodge ISKP from their bastions on the ground. A significant number of ISKP leadership arrests and disruption of urban cells have been due to Afghan intelligence and law enforcement operations. Whether these multinodal and multipronged anti-ISKP measures have been effective in the long term remains to be seen as it is difficult to pinpoint exactly how many ISKP fighters are still active and the number of covert cells that may be dormant in urban areas. It is therefore imperative to study whether these current CT mechanisms are working in terms of reducing the numbers and lethality of attacks and not just reducing the number of available fighters and bases available for ISKP.

This article will attempt to understand some of the aforementioned points and issues. The scope and objective of this article includes (but is not limited to) answering the various factors identified in terms of ISKP's presence in

Afghanistan, i.e., whether FTFs and international/cross-border ties will sustain ISKP in the long term or will they do the opposite and hinder its capabilities. Also, it will be analysed how much leadership decapitations and military losses have affected ISKP's capabilities and internal cohesion and whether it will be able to adapt its tactics to bear the brunt of CT operations and if it will prioritise exposing itself by conducting high-profile attacks for short-term relevance over long-term survival by lying low. Finally, the article will attempt to understand whether CT tactics have been effectively working and what more can be done to minimise the threat that ISKP poses in Afghanistan.

### **ROLE OF FOREIGN TERRORIST FIGHTERS IN ISKP**

#### *Understanding the Concept of Foreign Fighters and Foreign Terrorist Fighters*

Given that the term "foreign terrorist fighter" (FTF) has emerged or gained more prominence only in recent years, "foreign fighters" themselves are not a new phenomenon, brought about after 9/11, or by the rise and fall of the Islamic State and its caliphate post-2014. The existence and participation of foreign fighters goes as far back as the Spanish Civil War (1936-39), the Afghan jihad following the Soviet invasion of Afghanistan in 1989, the Bosnian war, the Somali Civil War, and the separatist violence in Chechnya and Dagestan, all in the 1990s.<sup>3</sup> The definition of a "foreign fighter" has been given as "an individual who leaves his or her country of origin or habitual residence to join a non-State armed group in an armed conflict abroad and who is primarily motivated by ideology, religion, and/or kinship."<sup>4</sup> Over the two and a half centuries, nearly 100 civil wars have included the involvement of fighters from a foreign state.<sup>5</sup>

However, the term "foreign fighter" was first officially used in reference to jihadists travelling from outside the country to fight for al-Qaeda in Afghanistan, and has been increasingly used since the terrorist-sponsored insurgency began

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3. Geneva Academy of International Humanitarian Law and Human Rights, Academy Briefing No. 7—Foreign Fighters under International Law (Geneva, 2014), p. 3.

4. Ibid.

5. David Malet, "What does the evidence tell us about the impact of foreign fighters on home-grown radicalization", July 6, 2015, at <https://www.radicalisationresearch.org/debate/malet-foreign-fighters-home-grown-radicalization/>, accessed on August 14, 2020.

in Iraq in 2003. In 2015, Alex Schmid wrote, “Before the Arab Spring erupted in 2011, some 30,000 Muslim foreign fighters had already taken part in 18 different conflicts, ranging from Bosnia to Kashmir and the Philippines. Since 2011, more than 25,000 foreign recruits from 104 countries have been drawn into the conflict in Syria and Iraq alone...” He further concluded that foreign fighters constituted at least 40 per cent of total number of fighters for IS in 2015.<sup>6</sup>

The United Nations (UN) defined FTFs in 2014 as “individuals who travel to a State other than their State of residence or nationality for the purpose of the perpetration, planning or preparation of, or participation in, terrorist acts or the providing or receiving of terrorist training, including in connection with armed conflict.”<sup>7</sup>

### *FTFs in ISKP*

FTFs currently operating in Afghanistan can be considered roughly to be of two types: (1) those belonging to a foreign terrorist organisation (FTO) but based in Afghanistan such as the Tehrik-e-Taliban Pakistan (TTP), and (2) those embedded in Afghanistan-based groups such as Lashkar-e-Taiba (LeT) members working with the Taliban. However, transnational groups such as ISKP or al-Qaeda in the Indian Subcontinent (both of which are centred in Afghanistan) include both Afghan fighters and FTFs and thus represent a hybrid of the two aforementioned types. The total number of FTFs in Afghanistan is assessed to be several thousand. The exact numbers of FTFs affiliated with ISKP is unknown but based on data available of those killed, surrendered and captured<sup>8</sup> it can be surmised that FTFs form a considerably significant part of ISKP’s manpower and capabilities.

FTFs have been strongly represented in the top leadership level in ISKP. As per data made available by the Combating Terrorism Center at West Point

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6. Alex Schmid, *Foreign (Terrorist) Fighter Estimates: Conceptual and Data Issues*, ICCT Policy Brief, International Center for Counter-Terrorism—The Hague, October 2015, at <https://www.icct.nl/wp-content/uploads/2015/10/ICCT-Schmid-Foreign-Terrorist-Fighter-Estimates-Conceptual-and-Data-Issues-October20152.pdf>, accessed on August 14, 2015.

7. United Nations Security Council (UNSC), Resolution 2178 (2014), September 24, 2014, Preamble paragraph 9.

8. Amira Jadoon and Andrew Mines, “Taking Aim: Islamic State Khorasan’s Leadership Losses”, *CTC Sentinel*, Combating Terrorism Center at West Point (CTC WP), vol. 12, issue 8, September 2019.

(CTC WP), top-level leadership roles have for the large part been filled by Pakistani FTFs.<sup>9</sup> Five out of six ISKP emirs have been FTFs (all Pakistani) except the fifth emir who was Afghan. The nationality of the seventh and present ISKP emir is also presumed to be an FTF going by his nom de guerre Sheikh Matiullah Kamahwal or Dr. Shabab al-Muhajir. Some sources claim that he is an Iraqi and was formerly affiliated with al-Qaeda in Afghanistan.<sup>10</sup> The honorific “sheikh” (which is usually reserved for the head of an Arab tribe or family or a wealthy or powerful person) has led to speculation that the present leader might be of Arab origin. The other name ending in “al-Muhajir”—that means “the migrant”—also indicates someone from outside the region. Other FTFs at the top leadership level include Syrians such as Abu Saeed al-Khorasani and Sheikh Abdul Tahrir along with Iraqis such as Abu Qutaibah and Abu Hajar al-Iraqi.<sup>11</sup>

When the sixth emir of ISKP, Aslam Farooqi—also known as Abdullah Orakzai (a Pakistani)—was arrested by Afghan security forces in April 2020, 12 other Pakistani nationals were also captured along with one Bangladeshi. The Bangladeshi national was in charge of the information technology (IT) department and communications of ISKP while one of the Pakistanis was in charge of logistics.<sup>12</sup> The Bangladeshi FTF was also involved in the failed bombing attack at the Hotel Olio in 2017 meant to assassinate Bangladeshi Prime Minister Sheikh Hasina.<sup>13</sup>

A UN report in January 2020 suggested that following Afghan military operations in Takhar, Kunduz, Badakhshan and Baghlan around 400 FTFs from China, Pakistan, Tajikistan, Uzbekistan and elsewhere affiliated to ISKP, the East Turkestan Islamic Movement (ETIM) and four Central Asian terrorist groups

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9. Ibid.

10. As per the Islamic State’s Department of far-away provinces and ISKP’s al-Milat Media.

11. UNSC, S/2020/717, “Twenty-Sixth Report of the Analytical Support and Sanctions Monitoring Team Submitted Pursuant to Resolution 2368 (2017) Concerning ISIL (Da’esh), Al-Qaida and Associated Individuals and Entities”, July 23, 2020, pp. 14-16.

12. Reuters, “Bangladeshi IS leader arrested in Afghanistan”, *Dhaka Tribune*, April 15, 2020, at <https://www.dhakatribune.com/world/2020/04/15/bangladeshi-is-leader-arrested-in-afghanistan>, accessed on May 24, 2020.

13. Benar News, “Suspected Bangladeshi IS Member Caught in Afghanistan, Officials Say”, April 15, 2020, at <https://www.benarnews.org/english/news/bengali/bangladesh-militants-04152020190400.html>, accessed on May 25, 2020.

escaped to other provinces.<sup>14</sup> In Jowzjan province in northern Afghanistan it was reported in December 2017 that French and Algerian FTFs, in addition to Chechens and Uzbeks, had come from Iraq and Syria and from the north to allegedly start training hundreds of child soldiers for ISKP.<sup>15</sup>

Apart from this, a contingent of around 200 Central Asian ISKP fighters is led by a young Tajikistani national named Sayvaly Shafiev, a member of the ISKP shura, who carries out recruitment and propaganda activities in Tajik language. ISKP has targeted Tajik migrant workers in Russia using social media for recruitment and provided logistical help to travel to terrorist training camps in Afghanistan. In November 2019, 20 ISKP Tajikistani FTFs carried out an attack on a Tajikistani border outpost.<sup>16</sup>

In late 2019, following ISKP's losses in Nangarhar against Afghan forces and the Taliban (to an extent), 350 FTFs from India, Iraq, Jordan, Saudi Arabia and Syria escaped to Kunar while 150 Pakistani FTFs escaped to Orakzai in Pakistan. However, from October 2019 to February 2020, around 1,442 ISKP members (including dependents) had surrendered to the Afghan government out of fear of reprisals from the Taliban. Among this batch of surrendered ISKP members most of the military-aged males were Afghan but the others along with many family members were from Azerbaijan, Canada, France, India, the Maldives, Pakistan, Tajikistan, Turkey and Uzbekistan.<sup>17</sup>

The UN had reported in July 2020 that through FTFs, ISKP has managed to keep in contact with IS-Central in Iraq and Syria even though IS-Central is

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14. UNSC, S/2020/53, "Twenty-Fifth Report of the Analytical Support and Sanctions Monitoring Team Submitted Pursuant to Resolution 2368 (2017) Concerning ISIL (Da'esh), Al-Qaida and Associated Individuals and Entities", January 20, 2020, pp. 14-16.

15. Khaama Press, "French ISIS fighters move to Afghanistan after facing defeat in Syria", December 10, 2017, at <https://www.khaama.com/french-isis-fighters-move-to-afghanistan-after-facing-defeat-in-syria-04015/#:~:text=French%20ISIS%20fighters%20move%20to%20Afghanistan%20after%20facing%20defeat%20in%20Syria,-By%20Khaama%20Press&text=Several%20foreign%20militants%20affiliated%20with,Iraq%2C%20it%20has%20been%20reported,> accessed on June 1, 2020.

16. *New York Times*, "ISIS Fighters Attack Outpost in Tajikistan", November 6, 2019, at <https://www.nytimes.com/2019/11/06/world/asia/isis-tajikistan.html>, accessed on February 29, 2020.

17. UNSC, S/2020/415, "Eleventh Report of the Analytical Support and Sanctions Monitoring Team Submitted Pursuant to Resolution 2501 (2019) Concerning the Taliban and other Associated Individuals and Entities Constituting a Threat to the Peace, Stability and Security of Afghanistan", May 27, 2020, pp. 16-19.

**Within ISKP, FTFs seem to be playing leading and critical roles in terms of organisational processes, operations and carrying out attacks. While the exact ratio of FTFs in ISKP is a matter of debate, it can be said with reasonable certainty that FTFs are fulfilling a crucial role and their nature as outsiders makes their defection or surrender to the Taliban less likely.**

no longer playing an active role in the internal processes of ISKP.<sup>18</sup> This is in contrast to April 2019 when IS-Central had played a lead role in the appointment of Farooqi as the ISKP emir by replacing his predecessor due to performance setbacks in eastern Afghanistan.<sup>19</sup> It seems that the dwindling resources of IS-Central had led to a faltering in the manner of support that it could provide to ISKP or its other affiliates. However, the movement of FTFs from Iraq and Syria had been minimal in recent times given the downfall of IS-Central in terms of territory and resources along with difficulty in travel due to increased vigilance.

Though the FTFs from the Maldives form a relatively small number of ISKP fighters, they have joined the group in significant proportions. A major ISKP recruiter in the Maldives was one Mohammed Ameen who had been recently arrested by Maldivian authorities and had been designated by the US government as a global terrorist. As of April 2019, Ameen was actively engaged in carrying out recruitment for IS through his close lieutenants. Ameen and his group continued to recruit for IS from various Maldivian criminal gangs. Ameen used to direct terrorist fighters to Syria, but had recently started sending them to Afghanistan.<sup>20</sup>

Within ISKP, FTFs seem to be playing leading and critical roles in terms of organisational processes, operations and carrying out attacks. While the exact ratio of FTFs in ISKP is a matter of debate, it can be said with reasonable

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18. UNSC, n. 14.

19. UNSC, S/2019/570, "Twenty-Fourth Report of the Analytical Support and Sanctions Monitoring Team Submitted Pursuant to Resolution 2368 (2017) Concerning ISIL (Da'esh), Al-Qaida and Associated Individuals and Entities", July 15, 2019, p. 15.

20. US Department of the Treasury, "Treasury Targets Wide Range of Terrorists and Their Supporters Using Enhanced Counterterrorism Sanctions Authorities", September 10, 2019, at <https://home.treasury.gov/news/press-releases/sm772>, accessed on December 12, 2019.



certainty that FTFs are fulfilling a crucial role and their nature as outsiders makes their defection or surrender to the Taliban less likely. Other FTOs in Afghanistan are more concerned with carrying out operations in their respective countries, for instance, certain Central Asian groups are intent on attacking their homelands and thus their membership also remains restricted to their own respective ethnicities. Groups like ISKP want to establish a base in Afghanistan that consists of territory and a functioning (albeit limited) governance system as per Islamist tenets and thus provide more incentive for outsiders to join and fight for an Islamic state. FTFs in the long term will not provide a major strategic boost to ISKP but in the short term can provide attractive incentives for new members to join and ISKP will need a decent amount of domestic support to even have a chance of establishing a long-term physical presence.

### *Recent ISKP Attacks and Tactics Involving FTFs*

One of the most deadly and sophisticated attacks by ISKP in recent times was the Jalalabad prison raid on August 2, 2020 that lasted for almost 20 hours and killed 30 people—including 11 policemen, 14 civilians and five prisoners—and led to approximately 300 prisoners escaping, many of whom were linked to ISKP.<sup>21</sup> This attack seemed to have been inspired by the “Breaking the Walls” campaign, a series of jailbreaks, carried out by IS during its early formative days in Iraq<sup>22</sup> and now seems to have been guided by Iraqi and Syrian FTFs

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21. Fahim Abed, “Afghan War Casualty Report: August 2020”, *New York Times Magazine*, August 6, 2020, at <https://www.nytimes.com/2020/08/06/magazine/afghan-war-casualty-report-august-2020.html>, accessed on August 8, 2020.

22. *Business Insider*, “Trump’s abrupt withdrawal from Syria may allow ISIS to come back with a vengeance—using the group’s time-tested strategy”, October 11, 2019, at <https://www.businessinsider.in/international/news/trumps-abrupt-withdrawal-from-syria-may-allow-isis-to-come-back-with-a-vengeance-using-the-groups-time-tested-strategy/articleshow/71538888.cms>, accessed on August 6, 2020.

in ISKP. The Jalalabad prison raid also seems to have used similar tactics used by IS in Iraq and Syria, including the use of *inghimasi* (suicide) tactics. An ISKP spokesman even compared the attack to the Abu Ghraib prison break in Iraq in 2014<sup>23</sup> that was instrumental in giving IS a major recruitment and propaganda win prior to its formal establishment.

The attack involved 11 terrorists of whom eight were FTFs (four Tajikistanis, three Indians and one Pakistani).<sup>24</sup> A few weeks prior to the attack, Ansar-ul-Khilafah in Hind (a South Asian IS-linked entity) in the July edition of its *Voice of Hind* (VoH) magazine made references to imprisoned IS members and said getting them out of prison by force remained a top priority. The magazine also mentioned that IS had previously carried out *inghimasi* operations to free their members from prisons in Syria and elsewhere.<sup>25</sup> *Inghimasi* are suicide attackers who carry small arms and explosive belts. *Inghimasi* fundamentally operate as ‘shock troops’, aiming to soften the defences of their targets for follow-up attacks.<sup>26</sup> Given that three of the attackers involved in the prison raid were Indian (including the suicide bomber), along with one from Pakistan, the references to prison breaks and *inghimasi* operations in *VoH* seem to be significant when highlighting the role that FTFs have played in recent ISKP attacks.

### *Recruitment of FTFs from India into ISKP*

On March 25, 2020 terrorist(s) affiliated with ISKP carried out an attack on the Gurudwara Har Rai Sahib in Kabul killing 25 people. One of the terrorists who carried out the attack had been identified as Mohammed Muhsin from Kerala. Muhsin and the Jalalabad prison raid suicide bomber, Dr. Ijas Purayil, are suspected to be part of the same group of 21 men who had left for Afghanistan to join IS from Kasaragod, Kerala.<sup>27</sup> According to a

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23. Official Speech from the Media Office of Khurasan Wilayah, Black Flags Media Center, *Telegram*, August 3, 2020.

24. *Ibid.*

25. *Voice of Hind*, Issue 6 (Dhul-Hijjah 1441), Al-Qitaal media, *Telegram*, July 2020.

26. Cameron Colquhoun, “*Inghimasi—The Secret ISIS Tactic Designed for the Digital Age*”, *Bellingcat*, December 1, 2016, at <https://www.bellingcat.com/news/mena/2016/12/01/inghimasi-secret-isis-tactic-designed-digital-age/>, accessed on August 5, 2020.

27. *The Hindu*, “Kerala doctor may have been among Afghan jail attackers”, August 4, 2020, at <https://www.thehindu.com/news/national/kerala-doctormay-have-been-among-afghan-jailattackers/article32271298.ece>, accessed on August 6, 2020.

National Investigation Agency (NIA) charge-sheet filed in 2017, the leader of the Kasaragod module, Abdul Rashid, used to conduct “pro-ISIS classes” at the home of Purayil in Kasaragod. The Kasaragod module was unearthed by investigators in 2016 after 24 people went missing. The core module converted three women and two men to their version of Islam, arranged for their weddings, and travel to Afghanistan.<sup>28</sup>

However, recently it was reported that DNA testing had shown the Kabul gurdwara attacker was not Muhsin but an Afghan.<sup>29</sup> The same report quotes a source who said that most Indians recruited to IS/ISKP are in supporting roles such as doctors and engineers, not frontline fighters.<sup>30</sup> If this is true then the fact that ISKP is using such skilled members for gun attacks suggests that the group is stretched thin in terms of manpower or that ISKP is so desperate for publicity and status that it feels no remorse in sacrificing such important members in high-profile attacks. Usually, terrorist groups keep such specialists in reserve for major attacks. Terrorists who are skilled in other important areas apart from combat are more prized and safeguarded by terrorist groups as their skills are valuable in teaching new recruits and operational planning.

Be that as it may, using the profile of an Indian national (and others) for the recent attacks serves three purposes for ISKP. First, it gives an Indian face to attacks in some of Afghanistan’s most secure areas. By doing so, ISKP aims to inspire other Indian Muslims sympathetic to the cause to support it and even carry out attacks in its name in India (if they cannot make it to Afghanistan). Second, it demonstrates that ISKP is not yet completely defeated in Afghanistan, much less regionally. It shows that ISKP has fighters in its ranks not just from Afghanistan and Pakistan, but also from democratic secular nations like India. Third, using an Indian Muslim from states like

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28. *Indian Express*, “Explained: Kerala’s Islamic State connection”, December 5, 2019, at <https://indianexpress.com/article/explained/simply-put-keralas-isis-connection-islamic-state-afghanistan-6149447/>, accessed on December 20, 2019.

29. *The Print*, “DNA test shows Kabul gurdwara bomber was Afghan, not Indian from Kerala’s Kasargod”, August 11, 2020, at [https://theprint.in/world/dna-test-shows-kabul-gurdwara-bomber-was-afghan-not-indian-from-keralas-kasargod/479516/?amp&\\_\\_twitter\\_impression=true](https://theprint.in/world/dna-test-shows-kabul-gurdwara-bomber-was-afghan-not-indian-from-keralas-kasargod/479516/?amp&__twitter_impression=true), accessed on August 15, 2020.

30. *Ibid.*

Kerala with strong links to the Gulf region, is an attempt to radicalise more such people as they are notably well educated and skilled and may prove to be valuable assets for ISKP.

IS in its propaganda, especially recently, has been targeting audiences in India. It has been attempting to attract mostly individuals who are educated/skilled and have the capability to travel overseas to settle in places like Afghanistan. While IS and jihadist propaganda has found relatively few takers in India, especially domestically, there are always chances of overseas support that may lead to a change in the equilibrium. There have been some individuals who had fallen prey to jihadist propaganda and had either attempted to or succeeded in travelling to Afghanistan or Syria to fight for IS or had plotted terror attacks domestically.

On August 22, 2020 Delhi Police arrested an IS operative after a brief encounter and recovered a significant amount of improvised explosive devices (IEDs). He was presumably planning a major lone wolf attack on India's Independence Day and was in touch with overseas handlers.<sup>31</sup> As per the police the accused had plans to travel to Afghanistan along with his family. But this plan was shelved after killing of Abu Huzaifa al-Bakistani, a former LeT terrorist who joined ISKP and played a major role in forming Wilayat al-Hind or Islamic State Hind Province (ISHP) and was an important recruiter of Kashmiri militants in Afghanistan last year.<sup>32</sup> This shows that ISKP has been able to inspire individuals to carry out attacks in India as well.

## CROSS-BORDER ISKP OPERATIONS

### *ISKP's Emergence in Pakistan and Subsequent Expansion into Afghanistan*

The Afghanistan-Pakistan region is an infamous fountainhead for jihad in South Asia since the 1980s, and even today it remains a safe haven for various regional terrorist groups. IS had a presence/influence in Pakistan

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31. PTI, "ISIS operative held in Delhi had planned terror strikes: police", *The Hindu*, August 22, 2020, at <https://www.thehindu.com/news/national/isis-operative-held-in-delhi-had-planned-terror-strikes-police/article32419493.ece>, accessed on August 23, 2020.

32. *Hindustan Times*, "IS's key recruiter for Kashmir killed in drone strike in Afghanistan", July 21, 2019, at <https://www.hindustantimes.com/india-news/is-s-key-recruiter-for-kashmir-killed-in-attack/story-rmeHtQ6gke99S8goVqPQqL.html>, accessed on September 19, 2019.

from as early as 2013-2014 as many Pakistani FTFs had fought for IS in Syria including the first ISKP emir Hafiz Saeed Khan who led a contingent of TTP fighters in the Syrian Civil War.<sup>33</sup> Many of these returning FTFs and their followers started to form their own outfits taking advantage of the leadership crises and factionalism within the TTP during the time and declared allegiance to IS. These outfits, alongside the TTP, and other fighters escaping Pakistani military operations, had established safe havens in multiple districts of Nangarhar. Initially, ISKP was allowed to use their smuggling routes for illegal exports and movement of men and material.<sup>34</sup> These escaping Pakistani militants then became the foundation of ISKP in Afghanistan and drew in defecting and dissenting fighters from the Taliban and other Afghanistan-based jihadist groups.

Wilayat Pakistan or Islamic State Province of Pakistan (ISPP) was officially declared in May 2019 with the apparent intent to provide operational autonomy for IS operations in Pakistan from ISKP and bringing together some splinter factions of the TTP such as Jamaat-ul-Ahrar and other Pakistan-based militant groups such as Lashkar-e-Jhangvi al-Alami (LeJ-A), Jundullah, *Ansarul Khilafat Wal Jihad*, and Ansar-ul-Mujahideen by promoting local interests.<sup>35</sup> This decoupling of ISPP from ISKP could be to respond speedily to local developments or manage local factional disputes and organisational changes. As per Pakistani media, the leader of ISPP is a former constable in the Karachi police and an ex-TTP member named Daud Mehsud. Reportedly there is no direct link between ISPP and IS-Central but rather all directives are relayed via ISKP.<sup>36</sup>

### ***Probability of ISKP's Re-emergence by Building Alliances***

In the present day, however, there is little incentive for groups like the TTP and Lashkar-e-Islam (LI) to align with ISKP at the expense of the Taliban given

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33. Antonio Giustozzi, *The Islamic State in Khorasan: Afghanistan, Pakistan and the New Central Asian Jihad* (United Kingdom: C. Hurst and Co., 2018).

34. Amira Jadoon, "Allied & Lethal: Islamic State Khorasan's Network and Organizational Capacity in Afghanistan and Pakistan", CTC WP, December 2018.

35. *Ibid.*

36. SAMAA TV, "Daesh looks to gain foothold in Balochistan under ex-Karachi cop", September 18, 2019, at <https://www.samaa.tv/news/2019/09/daesh-looks-to-gain-foothold-in-balochistan-under-ex-karachi-cop/>, accessed on December 30, 2019.

**ISKP may be choosing not to directly oppose the Taliban apart from propaganda as necessitated by its string of defeats against the latter and this measure would be imposed on ISKP for the short term.**

ISKP's relatively diminished strength. The TTP in fact put out a detailed statement saying that they are against ISKP in July 2020.<sup>37</sup> And currently, ISKP may be choosing not to directly oppose the Taliban apart from propaganda as necessitated by its string of defeats against the latter and this measure would be imposed on ISKP for the short term.

As mentioned in the previous section, after ISKP's defeat in Nangarhar in late 2019, around 150 Pakistani FTFs had moved back into Orakzai, Pakistan. While it is possible that many of those Pakistani FTFs could remain affiliated to ISKP (as evident by a slight increase in attacks against Pakistani security personnel in the tribal areas) but many could also (re)join the TTP and other groups for a wide variety of reasons. In fact the TTP under Noor Wali Mehsud's leadership could remedy some of the factionalism that had emerged under his predecessor Mullah Fazlullah (from the Yusufzai tribe as opposed to the TTP leader being traditionally from the Mehsud tribe) that led to ISKP's rise in 2014-2015. ISKP's weakening in this context could draw Pakistani Pashtun fighters back to TTP and place it on a stronger footing against ISKP and the Pakistani state, thus denying ISKP more strategic space in the frontier regions of eastern Afghanistan and Pakistan's tribal areas.

However, certain sectarian groups like LeJ-A are possibly still cooperating to a limited extent with ISPP in Pakistan. LeJ-A is also suspected of actively recruiting militants for IS. Groups such as these provide IS with an opportunity to penetrate Pakistan due to their sectarian nature. According to researchers at CTC WP, ISKP had drawn heavily on LeJ-A's capacity to conduct lethal attacks in Pakistan as 40 per cent of all casualties were related to attacks that involved both groups along in synchronicity with their respective geographic footprints.<sup>38</sup> In May 2020 Pakistani

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37. "Statement by the Tehreek-e-Taliban Pakistan on the recently released report by the United Nations", Nashir media, *Telegram*, July 30, 2020.

38. Jadoon, n. 34.

authorities killed four ISPP terrorists in an encounter in Punjab province and all four of them were linked to LeJ-A previously.<sup>39</sup> This does not necessarily signify that ISPP is dependent on LeJ-A to carry out attacks but it suggests that in Pakistan ISPP needs more local support for its operations due to relatively stronger counterterrorism and security mechanisms in place.

The Taliban, riding on the heels of ISKP's losses against Afghan and US forces, rapidly moved in to deal with any remaining ISKP resistance in Nangarhar and retook its smuggling routes from ISKP. This denied ISKP a route to export illegal timber, chromite,

talc, minerals and other resources across the border into Pakistan and severely affected its finances.<sup>40</sup> In western Afghanistan, especially in the provinces of Herat and Farah, the Taliban was aided by Iranian covert and proxy forces to stamp out ISKP's presence from the region,<sup>41</sup> given ISKP's hostility towards Shias and the possibility of Iran's eastern border getting destabilised.

Terrorist organisations cooperate because it augments their longevity and performance, and ultimately their political relevance. Enduring and expanding in a region like the Afghanistan-Pakistan border, with its huge variety of militant groups, requires a transnational terrorist group to form and operate as a network. The benefits that terrorist groups can obtain by alliances are even more significant when there is a central core group around which an alliance network forms. Therefore, alliance networks are well positioned to survive in difficult environments. In this context ISKP's ability to form an

**Terrorist organisations cooperate because it augments their longevity and performance, and ultimately their political relevance. Enduring and expanding in a region like the Afghanistan-Pakistan border, with its huge variety of militant groups, requires a transnational terrorist group to form and operate as a network.**

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39. PTL, "Four ISIS terrorists killed in Pakistan's Punjab province", *The Hindu*, May 17, 2020, at <https://www.thehindu.com/news/international/four-isis-terrorists-killed-in-pakistans-punjab-province/article31605618.ece>, accessed on June 1, 2020.

40. UNSC, n. 14.

41. Amira Jadoon, "Islamic State in Khorasan: Attempting to Absorb Rival Groups", Center for Global Policy, July 9, 2020, at <https://cgpolicy.org/articles/islamic-state-in-khorasan-attempting-to-absorb-rival-groups/>, accessed on July 25, 2020.

alliance structure will be necessary to expand in this region, especially given its current precarious situation. ISKP could further complicate the jihadist landscape of the Afghanistan-Pakistan region, which has for a long time remained a place of strife, along with tribal and ethnic tensions.

### **INTERNAL DEVELOPMENTS WITHIN ISKP: AIMS AND ORGANISATIONAL STRUCTURE**

Since its formation in 2015 ISKP has lost six of its top leaders known as emirs or governors, four of them were killed in CT operations and two were arrested by Afghan authorities, along with more than 550 mid-level leaders.<sup>42</sup> Although ISKP has been able to replace its leaders and restock its manpower in the past, coming back from such heavy losses would be a challenging task. In this regard ISKP has engaged in a drawn out conflict, and is exploiting opportunities in the current uncertain political environment to execute high-profile attacks to garner publicity while it attempts to replenish its strength.

When ISKP first emerged it was under the supervision of a special representative of IS-Central and the leadership of a governor (wali)/emir. Subordinate to this were its various sub-provincial deputy emirs, each responsible for a particular district. Parallel to this were the heads of various commissions and councils such as military, finance, recruitment, logistics and so on. Alongside this organisational structure the various affiliated groups had their own such subordinate hierarchy.<sup>43</sup> However, with the losses in territory, manpower and finances its formalised organisational structure has, for the large part, taken a back seat. It could not exercise any administrative and governance capability, in lieu of a more top-down structure that is largely capable of functioning independently with the leadership council only overseeing the decisions and processes. And the IS-Central special representative role is most likely non-existent right now.

Thus far, five of the six known leaders of ISKP were Pakistani, three of whom were ex-TTP commanders and one a Taliban defector. The identity of

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42. Jadoon and Mines, n. 8.

43. Giustozzi, n. 33.



the current leader remains unknown. Apart from the given names by ISKP and official records, many have suggested he may not be from Afghanistan, based on his name (as mentioned in the first section of this article). It is known that he was the former ISKP head for Kunar (along with being an Iraqi linked to al-Qaeda as per IS sources).<sup>44</sup> But it is difficult to say with certainty, given the various changing *kunyas* that jihadists adopt over the course of their existence. The losses of ISKP leadership in Afghanistan and Pakistan between 2015 and 2018 suggests that while the top-level tiers of ISKP leadership will remain mostly in Afghanistan rather than in Pakistan, those ranks, if the past is any indication, are likely to be filled largely by Pakistani nationals. This seems to be in line with the assumption that ISKP operates through its networks in Pakistan, whereas the core elements of its top leadership operate from within Afghanistan.

Three of the ISKP emirs were killed in Nangarhar and one in Kunar. However, the arrests of the two most recent emirs took place in Kabul and Kandahar respectively suggesting that the leadership either feels forced or confident to operate in urban zones. Also, both Kabul and Kandahar are relatively difficult places for ISKP leadership to lie low in but also makes sense as hiding in plain sight is often a sound strategy until found.

Kandahar has traditionally been more inclined towards the Taliban and therefore the arrest of Mawlawi Aslam Farooqi—the sixth ISKP emir (a former TTP commander from Khyber agency, Pakistan)—in April, is an interesting development. Either Farooqi was temporarily passing through or trying to make contact with supporters/acquaintances across the border in Pakistan, or amongst the Pakistani elements in Taliban-controlled regions in the province. The arrest of the fifth emir, Mawlawi Zia-ul-Haq (an Afghan from Kunar), from Kabul in May is surprising at first, but given the recent spate of ISKP attacks in the city it is not unlikely that he along with his entourage could also have infiltrated the city limits. Some sympathetic Salafi supporters within Kabul could also have helped shelter him till his arrest. Afghan security forces had reportedly made multiple arrests of ISKP supporters and cells in Kabul and Jalalabad.<sup>45</sup>

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44. UNSC, n. 14.

45. Ibid.

In northern Afghanistan, specifically in Jowzjan province, ISKP's leadership and personnel losses had greatly impacted its ability to operate in the province.<sup>46</sup> This is in stark contrast to Nangarhar where despite significantly more losses, ISKP continued to function with relative normalcy, possibly due to the mountainous terrain and egress routes into Pakistan.

The changes in the structure were due to losses that ISKP faced and its performance against the Taliban and government forces during which it lost territory and status after an initial high. However, it has been observed that losses and setbacks do affect the internal structure and decision-making processes if not their capabilities. When the fifth ISKP emir, Zia-ul-Haq, was replaced by Aslam Farooqi in April 2019 due to a string of losses in Nangarhar it put forward the impression of a quasi-meritocratic structure. The fact that this change happened following a visit by an IS-Central delegation is also telling. This was similar to when after the death of ISKP's first emir Hafeez Saeed Khan in 2016, an IS-Central delegation had come from Raqqa, Syria to Afghanistan to oversee operations, and a small number of Arab trainers had also arrived to support ISKP.<sup>47</sup>

However, Farooqi's appointment did not lead to any reversal in ISKP's position in Nangarhar and if anything the status quo remained largely the same. After Farooqi's arrest in April this year and ISKP under the management of Shabab al-Muhajir there seems to be more doubling down on attacks in an attempt to reclaim its status amongst jihadists to obtain new recruits and resources, though it does not control any new or significant territory except certain pockets in Kunar.

Given the internal politics of ISKP, a non-Afghan from the Middle East is better positioned to revive ISKP than someone with stronger local credentials. First, a non-Afghan is better positioned to deal with the internecine conflicts among local factions. Since its formation, ISKP has suffered from internal clashes regarding the ethnicities and nationalities of its leaders. These differences surfaced initially in the dispute between ISKP's first chief, Hafiz

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46. Amira Jadoon and Andrew Mines, "Broken, but not Defeated: An Examination of State-led Operations against Islamic State Khorasan in Afghanistan and Pakistan (2015-2018)", March 2020, CTC WP.

47. Ibid.

Saeed Khan, and prominent Afghan Salafi leader Abdul Rahim Muslim Dost. Dost refused to accept Saeed Khan's leadership, apparently on the basis of policy issues, but his statements condemning Saeed Khan's leadership demonstrated a clear dislike for his Pakistani background.<sup>48</sup> Muhajir can leverage his alleged ties with al-Qaeda to recruit from al-Qaeda in the Indian Subcontinent. ISKP's leadership has likely considered this, especially now, when some al-Qaeda members may be concerned about the Taliban's peace deal with the US, which calls on the Taliban to break ties with the group.

ISKP's aims have remained largely unchanged despite the losses and changes in leadership. When IS still held territory in Iraq and Syria, Afghanistan was looked as an extension of the IS caliphate into South-Central Asia and as a base to launch attacks in the wider region. ISKP probably wanted to establish an area of influence from eastern Afghanistan to certain tribal areas in Pakistan such as Orakzai, Bajaur, etc., from which some TTP commanders had joined ISKP. However, after the loss of its territory in Iraq and Syria, Afghanistan has become a near primary theatre for IS operations, especially given its focus on the South Asian region. With the branching of its affiliates in India, Pakistan and Bangladesh, the territory of Afghanistan is taking on the image of a staging ground for IS to rebuild itself in this part of the world while its members in the Middle East and Africa re-establish themselves in those regions.

The initial objectives of ISKP to dislodge the Taliban and the Afghan government from eastern Afghanistan had taken a back seat due to its recent losses and now it is looking to recruit and function as a clandestine group utilising terror attacks in urban areas instead of guerrilla tactics in remote areas. For now ISKP seems to be looking at new sources of funding after its smuggling routes were lost to the Taliban and in time re-emerge as a strong faction. Its ideology, despite being less rigid than its counterparts in Iraq and Syria and more prone to being influenced by regional politics, is still

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48. Bill Roggio, "Ex-Gitmo 'poet' and committed jihadist denounces Islamic State for attacks on civilians", *FDD's Long War Journal*, July 20, 2016, at <https://www.longwarjournal.org/archives/2016/07/ex-gitmo-poet-and-committed-jihadist-denounces-islamic-state-for-attacks-on-civilians.php>, accessed on June 1, 2019.

**Back in early 2016 when ISKP was much stronger than it is currently it had an estimated 7,000-8,500 fighters in Afghanistan and a presence in multiple districts in eastern, northern and western Afghanistan. However, by late 2019 its numbers dipped to 2,000-5,000 fighters.**

very brutal and extremist when compared to the Taliban and al-Qaeda and does not seek accommodation with groups that deviate from its ideology.

#### **COUNTER-TERRORISM STRATEGIES BY US AND AFGHAN FORCES AGAINST ISKP: AN ASSESSMENT**

Back in early 2016 when ISKP was much stronger than it is currently it had an estimated 7,000-8,500 fighters in Afghanistan and a presence in multiple districts in eastern, northern and western Afghanistan.<sup>49</sup> However, by late 2019

its numbers dipped to 2,000-5,000 fighters with its presence restricted to a few districts in Nangarhar and Kunar due to multiple CT operations against ISKP.<sup>50</sup> US and Afghan CT operations have led to positive results against ISKP through coordinated US air strikes working in synchronicity with US Army Special Forces-assisted Afghan military counteroffensives on the ground, such as in Operation Green Sword (OGS) in 2016 and Operation Hamza in 2017. Under increased military pressure, over the past year, the number of civilian casualties in ISKP attacks decreased by nearly half in the first nine months of 2019 compared to the same period in 2018.<sup>51</sup>

In 2016 due to the White House's expanded authorisation regarding CT air operations in Afghanistan and as a result of these multipronged operations throughout 2016 under OGS, ISKP fighters began more concerted efforts to destroy opium and heroin production facilities in Nangarhar, choosing

49. Antonio Giustozzi, "The Islamic State in 'Khorasan': a nuanced view", RUSI, February 5, 2016, at <https://rusi.org/commentary/islamic-state-khorasan-nuanced-view>, accessed on July 1, 2020.

50. Operation Freedom's Sentinel: Lead Inspector General Report to the United States Congress, July 1, 2019–September 30, 2019, at [https://www.stateoig.gov/system/files/q4fy2019\\_leadig\\_ofs\\_report.pdf](https://www.stateoig.gov/system/files/q4fy2019_leadig_ofs_report.pdf), accessed on June 1, 2020.

51. UN Assistance Mission in Afghanistan, "Quarterly Report on the Protection of Civilians in Armed Conflict: January 1, to September 30, 2019", October 17, 2019, at [https://unama.unmissions.org/sites/default/files/unama\\_protection\\_of\\_civilians\\_in\\_armed\\_conflict\\_-\\_3rd\\_quarter\\_update\\_2019.pdf](https://unama.unmissions.org/sites/default/files/unama_protection_of_civilians_in_armed_conflict_-_3rd_quarter_update_2019.pdf), accessed on May 10, 2020.

to follow strict directives from IS-Central,<sup>52</sup> presumably in an effort to acquire funds from IS-Central. Additionally, ISKP also began to rely more on timber smuggling networks and kidnapping-for-ransom because of this. The success of OGS was therefore both symbolic and logistically important, signalling that local forces could effectively hold territory recovered by Afghan and US forces. CT forces relied on local forces for territorial consolidation after stripping ISKP of important logistical supply routes like the route through southern Nangarhar that channelled weapons and personnel from the group's eastern positions towards more westward ones.<sup>53</sup>

**April 2017 marked the beginning of Operation Hamza, a joint operation between the Afghan and US forces to eliminate ISKP's presence in Kot district of Nangarhar and, for the first time, launch ground assaults into Mamand valley.**

April 2017 marked the beginning of Operation Hamza, a joint operation between the Afghan and US forces to eliminate ISKP's presence in Kot district of Nangarhar and, for the first time, launch ground assaults into Mamand valley.<sup>54</sup> These ground assaults were supported by heavy airstrikes. Operation Hamza stalled slightly in its opening months in 2017 as ground forces encountered heavily fortified ISKP positions in cave networks located at the entrance to Mamand and Pekha valleys in Achin.<sup>55</sup> In April 2017 the US military used the largest non-nuclear bomb in its arsenal, the GBU-43/B Massive Ordnance Air Blast, on an ISKP stronghold in Mamand Valley, Achin district, killing scores of ISKP fighters. The strike obliterated the ISKP frontline and allowed ground forces into the valley and spelled the beginning of the end for ISKP in Nangarhar.

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52. Khaama Press, "ISIS Loyalists Targeting Opium and Heroin Production in Afghanistan: Report", May 3, 2016, at <https://www.khaama.com/isis-loyalists-targeting-opium-and-heroin-production-in-afghanistan-report-0827/>, accessed on May 1, 2020.

53. Borhan Osman, "The Battle for Mamand: ISKP under Strain, but Not Yet Defeated," Afghanistan Analysts Network, May 23, 2017, at <https://www.afghanistan-analysts.org/en/reports/war-and-peace/the-battle-for-mamand-iskp-under-strain-but-not-yet-defeated/>, accessed on May 1, 2019.

54. UNSC, S/2018/466, "Ninth Report of the Analytical Support and Sanctions Monitoring Team Submitted Pursuant to Resolution 2255 (2015) Concerning the Taliban and other Associated Individuals and Entities Constituting a Threat to the Peace, Stability and Security of Afghanistan", May 30, 2018.

55. Osman, n. 53.

The second ISKP emir, Abdul Haseeb Logari, would then be killed a few weeks later in a joint US-Afghan operation. The operation that killed Logari and follow-up CT operations increased ISKP's operational security measures and cut off the group's communications, disbursement of salaries and weapons, and operations.<sup>56</sup> Following this ISKP started dispersing its forces and attempted to push back against Taliban lines in Tora Bora and westward towards Logar and Kabul provinces using supplies it was receiving from Khyber agency, Pakistan via eastern Nangarhar but ultimately these efforts failed.

ISKP suffered by far its most substantial overall losses in three districts in southern Nangarhar—Achin, Deh Bala, and Kot—which served as the group's operational hub in the northeast of Afghanistan. The group suffered targeting operations from multiple forces, the heaviest of which fell during major coalition operational surges, and lost three of its four emirs in Nangarhar (and one in Kunar) between 2016 and 2018. Counter-ISKP operations also benefited from the addition of three Afghan National Army-Territorial Force (ANA-TF) companies, defensively postured "hold" forces that were deployed to hold territory cleared of ISKP in CT operations.<sup>57</sup> By the end of 2018, ISKP's northward push toward Jalalabad and Kabul had mostly stopped, and the group's attempt to relocate its centre to Nangarhar's Nazian district was confronted by the ANA and a local militia group.<sup>58</sup>

In Jowzjan province in northern Afghanistan ISKP lost four recruitment chiefs in 2018 to CT operations. The first chief, Khitab'h (an Uzbek), captured by Afghan forces in January 2018, was reported to have been recruiting both Islamic Movement of Uzbekistan (IMU) fighters and FTFs in Jowzjan. His two co-successors were killed by a joint US drone strike and an Afghan special

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56. Paul Lushenko, "IS-K: Defeating the New Central and South Asia Jihad", in Theo Farrell, "Book Review Roundtable: A Look into the Islamic State-Khorasan," *Texas National Security Review*, August 13, 2019.

57. Operation Freedom's Sentinel: Lead Inspector General Report to the United States Congress, July 1-September 30, 2018, at [https://media.defense.gov/2018/Dec/07/2002070074/-1/-1/1/FY2018\\_LIG\\_OCO\\_OFS%20SEPT2018.PDF](https://media.defense.gov/2018/Dec/07/2002070074/-1/-1/1/FY2018_LIG_OCO_OFS%20SEPT2018.PDF), accessed on June 1, 2020.

58. *Pajhwok Afghan News*, "Anti-Daesh Uprising Force Springs into Action in Nazian", November 7, 2018, at <https://www.pajhwok.com/en/2018/11/07/anti-daesh-uprising-force-springs-action-nazian>, accessed on September 1, 2019.

operation in March 2018. Their successor, Qari Hekmat (another Uzbek and a Taliban defector), was killed in a US drone strike in April 2018. Hekmat's death struck a major blow to ISKP, since he also acted as the group's operational commander in Jowzjan in addition to a recruitment chief. After Hekmat's death, Mawlawi Habibur Rehman, another Uzbek national, was named as his successor in a move possibly meant to continue recruitment of FTFs from Uzbekistan, but he surrendered to Afghan authorities in summer of 2018 along with at least 200 fighters.<sup>59</sup> Thus, Jowzjan, given its remoteness and relatively secure border with Turkmenistan, was permanently dismantled as an ISKP hub in the north after this chain of leadership losses.

From September to November 2019, the number of ISKP members in Nangarhar was reduced from 1,750 fighters spread over seven districts, to less than 200 fighters who were under siege in the Takhto region of Achin district. However, the fighting was quite drawn out, near the headquarters of ISKP at the foot of the Spin Ghar mountains where over 300 improvised explosive devices (IEDs) had been encountered along the route into the area, letting hundreds of fighters escape to Kunar or into Pakistan.<sup>60</sup> While Afghan forces had previously been able to clear ISKP from its territories temporarily, operations since November 2019 have so far prevented the return of ISKP. This had stopped ISKP revenues connected to the export of illicit materials that had previously been smuggled across the Spin Ghar mountains and into Orakzai, Pakistan.

ISKP has no permanent formal presence in northern Afghanistan ever since its leadership was taken out in Jowzjan in 2018, although there are small groups of FTFs believed to be members of ISKP operating in Taliban-controlled areas of the north. The ideology of ISKP found some takers in the north, particularly among certain local Tajik and Uzbek populations. In 2019 two former Taliban commanders of Tajik and Uzbek origin from Kunduz province, Mawlawi Satar and Mawlawi Abdullah Majid had gone to fight for ISKP in Achin in Nangarhar. Both were also reportedly actively

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59. *Radio Free Europe/Radio Liberty*, "At Least 200 IS Fighters 'Surrender' In Afghanistan", August 1, 2018, at <https://www.rferl.org/a/at-least-200-is-fighters-surrender-in-northern-afghanistan/29402416.html>, accessed on June 1, 2019.

60. UNSC, n. 14.

**A combination of terrain, support networks, and access to both Pakistan and northern Afghanistan made Kunar one of the areas where ISKP regrouped outside of Nangarhar. In May 2020 it was reported that there remained 2,200 ISKP members, most of them in Kunar.**

recruiting Tajiks and Uzbeks from Kunduz. In case of further military pressure in Kunar, ISKP is expected to retreat to Badakhshan and other northern provinces.<sup>61</sup>

In late 2017/early 2018 ISKP moved into neighbouring Kunar province, where it became difficult for Afghan and US forces to target them but local Taliban militias launched attacks on a weakened and retreating ISKP and routed them into remote forests and mountains. A combination of terrain, support networks, and access to both Pakistan and northern Afghanistan made Kunar one of the areas where ISKP regrouped outside of Nangarhar. In May 2020 it was reported that there remained 2,200 ISKP members, most of them in Kunar. Within Kunar, the group was stated to be located in remote areas of Tsowkey district that are largely inaccessible by vehicle and provide large degrees of concealment from aerial surveillance owing to dense forest cover. Within Kunar, ISKP is located specifically in Chalas village, Dewaygal valley and Shuraz valley.<sup>62</sup>

Kunar province had become an ISKP base due to a historical prevalence of Salafist ideas in the area. A salafi proto-state was created in the province back in 1990 under Jamil al-Rahman and his Salafist political party.<sup>63</sup> Although Afghan Salafis were a small minority, but al-Rahman's attempt to create an Islamic state has had a profound impact on the development of the global Salafi jihadi movement and how that movement perceives and stylises itself. This influence was exercised through the direct contact that many major Salafi leaders had with al-Rahman's party as well as the symbolic value that numerous Salafi thinkers and activists placed in the creation of an Islamic state supposedly governed by Sharia.

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61. Ibid.

62. Ibid.

63. "The Declaration of the Islamic Emirate of Kunar", *Da'wat*, issue 12, March 1991, p. 6.



In 1991 after al-Rahman's assassination by a Muslim Brotherhood assassin<sup>64</sup> he was paid tribute by the likes of Osama bin Laden, Syrian cleric Abu Basir al-Tartusi, and the Saudi royal and religious establishment<sup>65</sup> among others. After al-Tartusi spent five months working with al-Rahman's mujahideen, he moved to Jordan and became a teacher and advisor to Abu Musab al-Zarqawi, the eventual leader of the Islamic State's predecessor organisation, al-Qaeda in Iraq.<sup>66</sup> Abdul Rahim Muslim Dost was one of the first Afghans to declare his allegiance to Abu Bakr al-Baghdadi<sup>67</sup> when he was declared the IS caliph in June 2014. Muslim Dost was named a deputy leader of ISKP in 2015. But in the 1980s, long before Muslim Dost was involved in the Salafist expansion into Afghanistan, he was an advisor to al-Rahman.<sup>68</sup>

**The US-Taliban agreement signed in February seems to have given ISKP fresh incentives to increasingly target urban areas and foreign assets as it seems from the recent spate of attacks in cities like the Kabul gurdwara attack, the attack on the Médecins Sans Frontières clinic, or the Jalalabad prison attack among others.**

## CONCLUSION

The US-Taliban agreement signed in February seems to have given ISKP fresh incentives to increasingly target urban areas and foreign assets as it seems from the recent spate of attacks in cities like the Kabul gurdwara attack, the attack on the Médecins Sans Frontières clinic, or the Jalalabad prison attack among others. These attacks and the targeting pattern indicate that ISKP saw the almost total absence of Taliban attacks in urban areas, particularly Kabul, as a chance to gain more publicity, and showcase

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64. Peter Tomsen, *The Wars of Afghanistan* (New York: Public Affairs, 2013), p. 388.

65. *Ibid.*, p. 389.

66. Kevin Bell, "The First Islamic State: A Look Back at the Islamic Emirate of Kunar", *CTC Sentinel*, February 2016, vol. 9, issue 2, CTC WP.

67. Thomas Joscelyn, "Gitmo 'Poet' Now Recruiting for Islamic State", *Weekly Standard*, November 19, 2014.

68. Bell, n. 66.

itself as an alternative to the Taliban, and advance its narrative of being uncompromising against non-Islamic forces.

In this context, ISKP's recent violent campaign is part of a broader strategy to derail ongoing peace negotiations, signal its resolve and remain politically relevant via high-publicity attacks. The recent attacks come straight out of ISKP's playbook; the group has a well-established record of launching attacks against Afghanistan's minority communities and government targets alike to drive sectarian wedges in the country and bolster its ranks with disaffected militants and ideologically aligned recruits. As Ambassador Zalmay Khalilzad noted, the announcement of the resumption of Afghan military operations against the Taliban in response to the recent violence delays the prospects of peace and plays directly into ISKP's hands.<sup>69</sup>

Beyond benefiting from operational links in Pakistan, ISKP also seeks to exacerbate political tension between Kabul and Islamabad. Farooqi's arrest near the Afghanistan-Pakistan border, and Pakistan's subsequent request that he be extradited, left many observers insinuating links between Pakistan's Inter-Services Intelligence and ISKP, with some mainstream outlets even accusing Pakistan of using ISKP as an instrument to weaken the Kabul government. The veracity of those claims is suspect and somewhat counterintuitive; while it is widely accepted that actors within the Pakistani security agencies seek to undermine the Kabul government's authority, the Afghan Taliban has mostly been the vehicle for those efforts. Nevertheless, the preponderance of these latest claims of Pakistani support for ISKP at a minimum points to ISKP's role in inflaming regional tensions.

ISKP's endurance in the face of heavy leadership and manpower losses can be attributed to three factors. First, the group has consistently leveraged lethal, cross-border operational alliances with resourceful militant groups in the region to sustain its activity. Second, ISKP has replenished its ranks in the face of heavy losses with a steady stream of militants, especially from Pakistan. Third, ISKP's leadership ranks are filled with commanders who possess extensive experience and expertise from their previous affiliations in

69. US Special Representative Zalmay Khalilzad (@US4AfghanPeace), Twitter, May 15, 2020, at <https://twitter.com/US4AfghanPeace/status/1261061323162517504>, accessed on June 1, 2020.

other regional militant groups. Some of the most lethal months for civilian casualties from ISKP attacks on record followed or coincided with the loss of the group's emir. With the arrests of Farooqi and Khorasani, ISKP has caused to demonstrate resolve and legitimacy to its supporters and its enemies, at least in the short term.

In Afghanistan, the US military is looking to withdraw some of those American forces assigned to train and operate with Afghan forces. Nearly six Special Forces teams—each with roughly a dozen members—have been cut since February. The move was prompted by apprehensions that cases of COVID-19 would most likely continue to rise within the Afghan military ranks indefinitely, posing a danger to the US Special Forces<sup>70</sup> (whose extensive training and experience make them valuable assets, especially alongside local forces behind enemy lines), and their relatively small medical infrastructure.

Though these soldiers have been critical in defeating ISKP alongside Afghan forces, the biggest test for Afghan security forces is possibly yet to come. Now would be a bad time to let any disruptions, caused due to the COVID-19 crisis or the peace talks, diminish the importance of key partnerships and shift the focus away from ISKP. In the series of victories against ISKP, the US and NATO collaboration with Afghan forces has been critical. While ISKP is now significantly weakened, regional cooperation and sustained targeting pressure has been the key to pressing ISKP into a collapse. The risk in taking pressure off a nearly but not completely destroyed ISKP amid uncertainty in Afghanistan is that it may inadvertently create openings for the group's resurgence in the future.

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70. *New York Times*, "U.S. Commanders Cite Pandemic as They Pull Back Elite Units Around the World", April 3, 2020, at <https://www.nytimes.com/2020/04/03/us/politics/coronavirus-special-operations-forces-pentagon.html>, accessed on May 1, 2020.



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