

**CHINA's INFRASTRUCTURE
IN TIBET AND POK -
IMPLICATIONS AND OPTIONS
FOR INDIA**

**CHINA's INFRASTRUCTURE
IN TIBET AND POK -
IMPLICATIONS AND OPTIONS
FOR INDIA**

By

**Lt Gen Vinod Bhatia, PVSM, AVSM, SM, (Retd)
DIRECTOR CENJOWS**



**Centre for Joint Warfare Studies (CENJOWS)
New Delhi**

*Copyright (C) 2016, Centre for Joint Warfare Studies (CENJOWS),
New Delhi
ISBN : 978-93-84492-08-3
Price in India : ₹ 250 /-*

All rights reserved

No part of this book may be reproduced, stored in a retrieval system, transmitted or utilised in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the copyright owner. Application for such permission should be addressed to the publisher.

The views expressed in the book are of the author and not necessarily those of the Centre for Joint Warfare Studies/publishers.

Printed in India

Printed by

Xtreme Office Aids Pvt. Ltd.

Basement Bhanot Building (Below Syndicate Bank)

Nangal Raya Commercial Complex, N.D-110046

Ph.: 9311156526

E-mail: xtremeofficeaids@gmail.com

Website: www.xtremeonline.in

CHINA'S INFRASTRUCTURE IN TIBET AND POK - IMPLICATIONS AND OPTIONS FOR INDIA

“TO GET RICH, ONE MUST BUILD ROADS”

- *An Ancient Chinese Proverb*

India and China share a 3488 km long disputed border, 1597 kms in Eastern Ladakh, 545 kms in middle sector of Himachal Pradesh and Uttarakhand, 220 kms in Sikkim and 1126 kms in Arunachal Pradesh. China claims a little over 110,000 sq kms of India's territory.¹ The Sino-Indian border is a peculiar set of contradictions, being the longest disputed border in the world as also the most peaceful disputed border with the last shot in anger fired on October 25th, 1975. A fragile peace exists ever since, with the disputed border being the ever present potential driver for conflict between the two nuclear armed neighbours - home to one third of humanity.

Since the 1962 debacle, China has always been and continues to be a long term threat to India, to be faced as and when it manifests. Most hope that the threat will never manifest and will be dealt by effective political engagement, economic cooperation and diplomacy, and keeping the temperatures low, along the borders. Though the nation has succeeded in keeping the external threat from China dormant for over half a century now, it will be prudent to build capabilities and enhance capacities as China respects strength. India needs to deal with China from near equal terms to ensure a negotiated and mutually acceptable

solution to the 'Boundary Question', sustained peace and a focus on long term stability and development.

As the borders are disputed, there is a constant effort by the border guarding forces of China and India to lay claims to their territories. The India-China border is defined by three disputed and imaginary lines. The first being the disputed International Boundary, a legacy of British India and the treaties with Tibet. The second is the Line of Actual Control (LAC). India has its perception of the LAC whereas China has its own perception. There are number of pockets which are disputed and hence both Indian Army and the PLA patrol these areas. On account of differing perceptions of the LAC the transgressions/intrusions by PLA in own territory is a common occurrence. These intrusions often lead to a "face off" between own Army and ITBP troops and the PLA. The "face offs" generally last a few hours, but a few like the one in Chumar in Sep 2014² and the Depsang in Apr/May 2013 lasted a couple of weeks. These "face offs" are a potential flash point and can lead to a skirmish and spiral into a conflict.

China learned the right lessons from the 1962 war, having realised the enormous risks and the impossible task in holding on to captured Indian territories in the inhospitable high altitude region of Arunachal Pradesh and Eastern Ladakh, they withdrew the troops and in the last 50 years applied its energy and ample resources to create a world class, state of the art, multi-dimensional multimodal infrastructure in Tibet Autonomous Region (TAR) . This includes a vast road and rail network, airfields, oil pipelines, logistic installations, and warehousing. The infrastructure developed has helped China integrate Tibet, settle its Han majority, thus changing the demographic pattern in this remote and generally hostile region and more importantly enhanced the military might along the Sino - Indian borders.

Highways and Roads

The Western Highway- This 3105 km long Highway from Lhasa-Kashgar/Aksai Chin connects Xinjiang to Tibet. A two-way, black top highway with a capacity of 3200 tons per day, it runs generally North and East all along the Sino - Indian Border. It is 1455 kms from Yecheng to Shiquanhe with no closure period and a large number of lateral roads leading to the LAC. There are three main alignments from Shiquanhe to Lhasa ³

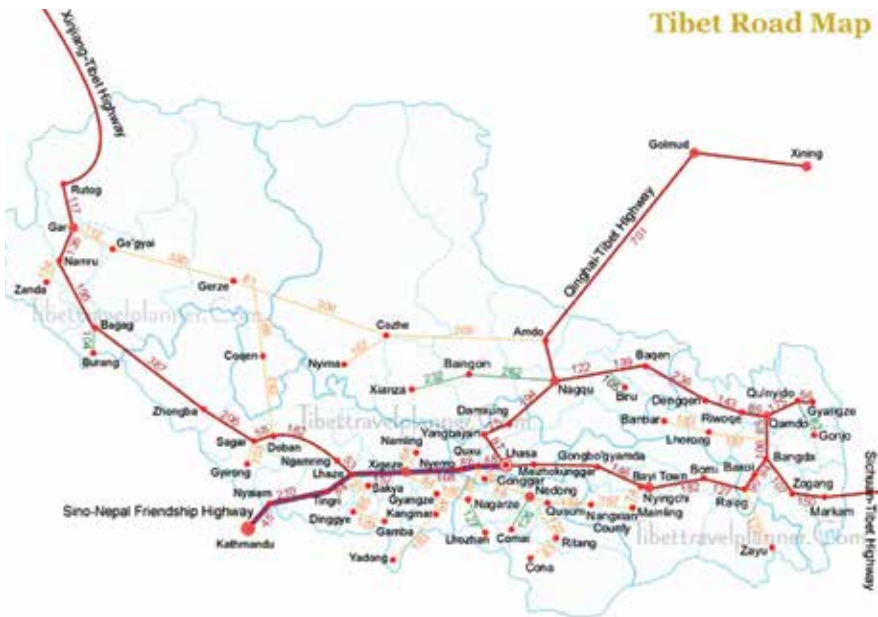
- **Northern Alignment.** 1260 Kms long and passes through Garze connecting with the central highway at Amdo.
- **Southern Alignment.** Approx 1850 kms long class 50 all weather road from Shiquanhe to Lhasa.
- **Alternate Alignment.** 1650 km long road connects Lhasa – Xigaze – Saka – Garze – Shiquanhe – Rudok.

The Central highway - A 2122 km long highway connects Xining (Qinghai province) – Gormo – Lhasa. This is the main highway and the life line of Tibet with over 80 % of the goods and passengers being transported on this Class 50, two way, black top road.⁴

The Eastern Highway - Connects Chengdu to Ngiti (TAR). It is 1715 km long, Class 50, two way all weather road with a capacity of 3200 tons per day. From Ngiti to Lhasa the road stretch is of approx 700 kms, thus effectively connecting Lhasa to Chengdu (home to the military region with 13 and 14 group Armies in location).⁵

Feeders and Laterals - A very large network of laterals has been constructed South of River Tsangpo, right upto the numerous passes along the LAC, thus establishing the Chinese claims to the disputed areas.⁶

Medog County Connectivity - In oct 2013 China made operational a vital road link to Medog County (hitherto the only county which was not connected) in TAR, located close to the Indian Border at Arunachal Pradesh. China while declaring the road open alluded to Medog County in Nyingchi prefecture in TAR as the “last isolated county” .⁷



<http://www.tibettravelplanner.com/road-map-tibet.htm>

Railways – Qinghai – Tibet

The 1142 Km, single lane Golmud – Lhasa rail link also known as the Qinghai – Tibet Railway (QTR) line is an engineering marvel as it is built in permafrost terrain at heights of 4000 to 5000 meters. This rail link alone has the capacity of moving eight passenger trains per day and 5 million tonnes of goods. China is all set to extend the railway network and connect the border areas along the LAC.¹⁰ The

projects under construction and planned are :-

- Lanzhou – Naqu rail link likely to be completed by 2015, will also provide redundancy to QTR and double the lift capability from the mainland to TAR.
- Kunming – Linzhi – Lhasa rail link slated for completion in 2017, will facilitate the build up of the 14th group Army of Chengdu Military region.
- Chengdu – Linzhi – Lhasa rail line scheduled for a 2018 completion will ensure speedier build up of



<https://www.google.co.in/search?q=tibet+railway&espv=2&biw=>

ground forces from Beijing, Jinan and Guangzhou as it connects TAR to the main Railway lines of the East Coast.¹¹

- Extension of the QTR to Shigatse and thereafter to Yatung will bring the rail link at the doorstep of Nathula and pose a credible threat to Sikkim, Western Bhutan and in effect the all vulnerable and important Chumbi

Valley, threatening the narrow Siliguri Corridor.

- Other extensions of QTR to Xigaze - Kashgar and Hotan in the Xinjiang Autonomous region are also under construction.¹²
- China is also considering a high speed Trans – Karakoram railway link from Kashgar to Havelian in Pakistan and onwards to Gwadar, which will go over the Khunjerab pass and Pakistan Occupied Kashmir (POK) area of Gilgit region. This will of course provide direct access to China to the Persian Gulf and address its oil/energy concerns,¹³ however more importantly for India it has major strategic implications in a conflict situation both with China and Pakistan. Pakistan will have a direct and ready access to China Military aid as and when required. Equally important is the fact that China will have a major stake in ensuring that this rail link along with the KKH is kept operational and not threatened by India. A threat to this life line would directly threaten Chinese interests and may call for an intervention in the event of India Pakistan conflict.

Upgradation of Airfields - TAR

China has constructed 14 major air bases a number of ALGs and numerous helipads on the Tibet Plateau. Raksha Mantri made a statement on 06 Mar 2011 in Parliament “PLA is also rapidly upgrading several other airstrips in TAR as well as South China in addition to the five air bases from where Chinese Sukhoi-27 UBK and 30 MKK fighters have practiced in recent times”¹⁴.

China has upgraded the main air bases in TAR including Gangger, Pangta, Linzhi, Naqu, Saga. Hoping and Shiquanhe,¹⁵ the upgraded air fields will facilitate better

payload (weapon) carrying capability including in adverse weather operations. In addition PLAAF has a credible Air – Air refueling capability and hence can optimise the main airfields in Kunming which are located at lower altitudes and thus enable aircraft to carry full pay loads. Additional advance landing grounds (ALGs) have been constructed for all weather operations of Unarmed Aerial Vehicles (UAVs)/drones.



Reportedly new airfields are being constructed at Tazhong, Shache, Loulan, Tumshuq, Qiemo and Fuyun. Tashong will also be China's first airport in the desert constructed in the Tarim Basin which has potential oil reserves and hence will be strategically important .¹⁶

In recent years China has reportedly inducted and de-inducted two division size forces in TAR in a 48 hour cycle as part of the annual exercises. This demonstrated capability is a sure signal of a three dimensional build up and sustenance capability of PLA in the event of a conflict with India. It is also a wake up call for India to build requisite capabilities and enhance capacities.

<https://www.google.co.in/search?q=airfields+in+tibet&espv=2&biw>

Communication Infrastructure

China has established 70 VSAT stations in TAR in addition to an extensive optical fibre communication(OFC) infrastructure connecting all 55 counties . All Command and control centres, military headquarters at all levels and border guarding forces are connected by OFC.

Logistics Infrastructure in TAR

The population of Tibet is approximately 3 million and dependent mainly on local resources. The infrastructure developed in terms of logistics installations is much more than is required to sustain the Tibetan people and has obvious military considerations. Major logistics hubs have been created at Lhasa, Naqu, Nigiti, Shigatse, Rudok, Shiquanhe, Kasghar. Naqu created as a major hub with road rail and air connectivity is estimated to handle 2.2 million tonnes of cargo by 2015 and 1 million tonnes by 2020.¹⁷ As per some unconfirmed through reliable reports the total warehousing capacity for logistic stocking in TAR is in excess of 20 Lac tonnes.

PLAs focus on logistics are indicative of its concerns and intent. To support operations South of Tsangpo opposite Sikkim and Western Bhutan logistics installation and military barracks have been constructed at Yatung, Phari Dzong, Gyantse and Shigatse. Tsethang and Orang are main logistics hubs opposite Kameng sector with Nigiti, Pangta and Rau for East Arunachal Pradesh. Similarly Rudok, Qizil Jilga, Kashgar and Yechang are logistics hubs for operation in Eastern Ladhak and the Himachal - Uttarakhand border.

In brief the present capacity of logistics bases in TAR is planned to be increased from the present 3mm tonnes to 5mm tonnes by 2022. The mother bases of Naqu (2.25 lac Tons) Ngiti (85,000 tonnes), Tsethang (1 lac tons) Shigatse (45,000 tonnes) and Shiqhaune 50,000 tonnes) give an unmatched capability and flexibility to the PLA to

apply combat power and sustain it in any or all theatre of operations.¹⁸

Dams - Controlling Water

The strategic importance of Tibet lies in the fact that China is soon going to control Asia's principal source of water. Nearly half of the world (47 percent, in terms of population, in 10 countries) depends on Tibetan water for its sustenance. China will use water as a strategic commodity and as a tool for energy and economic diplomacy with neighbours. There is a western route Transfer Project, a south-north water Diversion Project and a west-east Power Transfer Project. Moreover, a barrage near Tsamda gorge near Guge kingdom could disturb the Sutlej flow and enable China to control and regulate the flow of water into India. Similar things could also happen in the Lohit (Zayul Chu), Subansiri and Indus, amongst others. Essentially, while China launches a new unconventional/non-linear war, the question needs to be asked: is India prepared to respond to such an onslaught?¹⁹

Roads and Highways – India

As a misplaced strategy India shied away from constructing roads along the India-China Border. In 2010, Defence Minister A.K. Antony while addressing a function organised by the Border Roads Organisation (BRO) said, "Earlier the thinking was that inaccessibility in far-flung areas would be a deterrent to the enemies." He acknowledged that this was an "incorrect approach" and stated that the government has decided to upgrade roads, tunnels and airfields in the border areas.²⁰ As Parliament's Standing Committee on Defence, 2013-2014, noted in a recent report, India's air, road and rail network near its border with China is in a "very dismal" state. Of the 73 all-weather roads that were identified for construction in 2006, just 19 have been completed so far. Of the 27 roads that were to be constructed by the Indo-Tibetan Border Police, just one is complete, the report pointed out, adding that "as many as eleven roads are behind schedule" with even their detailed project reports not yet finalized. As

for construction of 14 strategic railway lines that were to be laid near the border, these have registered “nil achievement,” the report said.²¹

The delays can be attributed to multiple reasons from bad planning, environment clearances, construction capacities, lack of will to take hard decisions and funding. The fact remains that the much needed road connectivity along India-China border is either non-existent or woefully inadequate even for development of the region leave aside defence needs. The awful state of infrastructure on the border is the result, incredibly enough, of a deliberate policy in New Delhi over the last several decades, not to develop connectivity along the frontiers.²²

Road Connectivity - Ladakh Ladakh is connected by two major passes - Zozila which remains open for approx four to five a months a year and Rohtang pass which remains open for even a lesser duration. This limited period of road days available are just about adequate to meet the ever increasing material demands of the people of Ladakh for their sustenance during the winters as also that of the Army and ITBP. The road network East of Leh connecting the LAC in most areas ranges from 5 to 80 kms.²³

Middle Sector - Himachal Pradesh and Uttarakhand The Old Tibet road is the single road axis leading to Puh from Shimla in Himachal Pradesh. This Axis is prone to major disruptions during monsoons and closes in part during the winters. Similarly the roads leading to Harsil , Joshimath, and Tawaghat are no closer to the LAC. The Uttarakhand floods of June 2013 are a stark reminder of the state of road connectivity and susceptibility to weather.²⁴

Sikkim Sikkim is connected to Siliguri by a single road axis. Efforts to construct an alternate Eastern axis have been in vain on account of environmental clearances. The only road leading to Nathula from Gangtok is poorly maintained and remains cut off on a number of days both during monsoons

and winters.²⁵ The road leading to North and North East Sikkim is equally bad and prone to landslides at a number of places. Alternate routes planned have not been accorded the requisite environmental clearances.

Arunachal Pradesh Recalling her trip to the McMahon Line in the summer of 2013, Monika Chansoria, Senior Fellow and Head of the China-study program at the Centre for Land Warfare Studies in New Delhi, spoke of the “pathetic” condition of the road running to Tawang, an important bone of contention between India and China. This is an area that experiences heavy rains and landslides throughout the year. Yet the road lacks a system for drainage, rendering it a slushy stretch, she told *The Diplomat*. As for the road from Tawang to Bumla (the last border post on the Indian side), it takes a “grueling” three hours to cover this 40 km stretch, she says, “making it perhaps the worst and most unpleasant of all journeys by road.”²⁶

To summarise Indian Road Heads are 05 to 85 kms from the LAC in Eastern Ladakh whereas China has constructed roads right up to its perception of the LAC in most areas. In the middle sector own roads are 30 to 70 kms vis-a-vis 5 kms of China. In Sikkim own roads are 10-15 kms wherein China has last mile connectivity to the passes both in Sikkim and Tawang. In the Areas of East Arunachal Pradesh the state of roads on own side is dismal with the LAC being 20-70 kms from the Road Head whereas Chinese roads are mostly up to LAC and in a few place about 20 kms away.

Railway lines India is planning to lay 14 strategic railway lines close to borders with both Pakistan and China to help in easier and faster movement of troops of which 9 are planned to be constructed along the Northern Borders. The estimated construction cost of the nine lines is pegged at Rs 55,831 crore. Out of the 14 planned railway lines, survey

has been completed for 12.²⁷ The railway projects planned are :-²⁸

- Murkongselak - Pasighat - Tezu - Rupai - 256 Kms.
- Misamari- Tawang - 378 Kms.
- North Lakhimpur - Along - Silapathar - 248 Kms.
- Srinagar - Kargil - Leh - 430 Kms.
- Pathankot - Leh - 400 kms.
- Tanakpur - Bageshwar - 155kms.
- Dehradun - Uttarkashi - 90 Kms.
- Rihikesh - Chamoli 160 Kms.
- Tanakpur - Jwaljivi 90 kms.

Air Fields Fortunately for India the airfields located in the plains are in the proximity of the borders and air operations can be mounted from these air bases. Additional air bases are being planned to be constructed and others made operational close to the border. As these bases are located on the plains the air assets can be fully exploited. However , there remains an urgent need to construct aviation bases for rotary wing and UAVs .

The China - Pakistan Economic Corridor (CPEC)

On 14th March 2013 President Xi Jinping took over as the president of People's Republic of China thus becoming a 'paramount leader', wearing all three hats simultaneously, that of the all powerful general secretary of the Communist Party of China and Chairman Central Military Commission. Within 24 hours of assuming the all powerful office Xi Jinping cleared the China - Pakistan Gwadar agreement giving China 40 years of management rights to Pakistan's Gwadar port. The management and control of the Gwadar port gives China the much needed strategic access to the

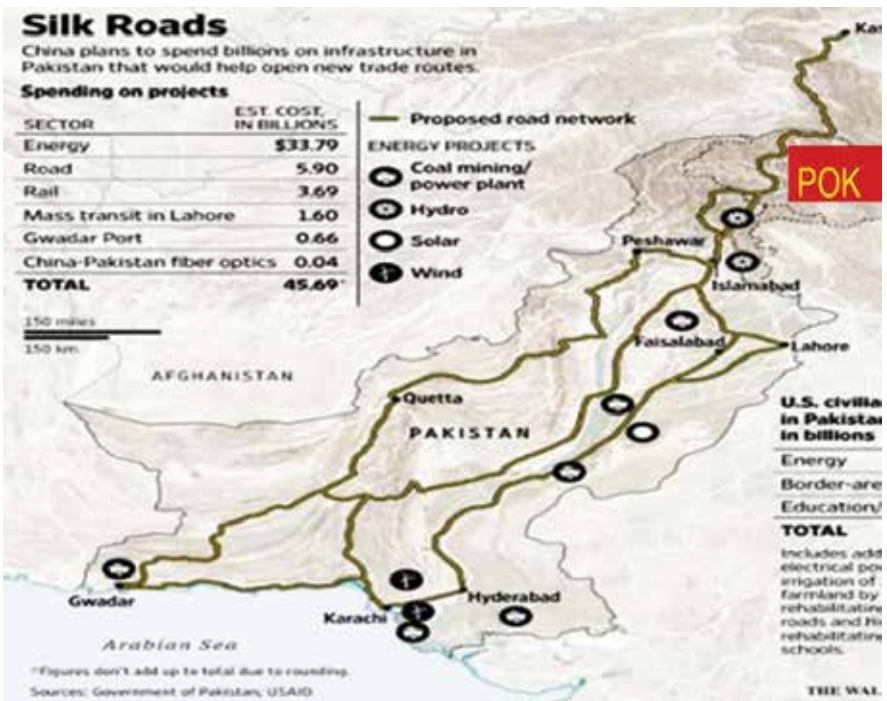
Arabian Sea and the Indian Ocean. It is open to debate by China watchers, that the immediate clearing of the Gwadar agreement is a deliberate move signalling China's priority, or just a case of a project being cleared in the normal course wherein all process and formalities had already been completed.

The idea of developing CPEC, was first mooted by Chinese Premier Li Keqiang during his visit to Pakistan in May 2013, and while the idea is old, there is a renewed strategic and economic commitment to the corridor. The idea gained impetus only after China publicly mooted the ambitious plan for an inter-continental Silk Route in March 2013.



CPEC is pivotal to China’s ‘One Belt ,One Road (OBOR)’ as an instrument of China’s global economic reach and grand strategy. OBOR project has two components: first, the land-based ‘New Silk Road’ and second, a ‘21st Century Maritime Silk Road’. The strategic importance and priority of CPEC can be gauged by the fact that 51 agreements were signed amounting to \$46 billion, during President Xi Jinping’s maiden visit to Pakistan, in April 2015. Chinese officials have called the CPEC a “flagship project” of the OBOR plan, pointing out that the corridor provides a link between the overland Silk Road Economic Belt and the Maritime Silk Road (through Gwadar Port).

CPEC is a comprehensive development program worth a massive \$ 46 Bn. The road network entails the linking of Gwadar Port to Kashgar in China’s restive Xinjiang region through three alignments, the Eastern, Central and Western



highways. In addition this multimodal multidimensional corridor will comprise of railway links, oil and gas pipelines, and an optical fiber link. Infrastructure to be built includes 2,700-kilometre highway from Kashgar to Gwadar through Khunjerab pass and the Karachi-Lahore motorway. The CPEC will also extend the Karakorum highway that links Xinjiang with Pakistan's northern region, Gilgit-Baltistan and Khyber Pakhtunkhwa.

The deep sea port of Gwadar is located at the mouth of the Persian Gulf, dominating the Strait of Hormuz, through which 20 percent of the world's oil is transported. China is likely to invest another \$1.62 billion on further development of the Gwadar port constructing an expressway to link the harbor and coastline, an international airport, as also nine more linked projects which are to be completed in the next five years including a 1,200 meters container and a 300-meter-long cargo terminal.

An 1800 Km railway line is also planned to be constructed from Kashgar to Gwadar via Havellian which is already linked with the rest of the rail network in Pakistan. China will lay some 350 km of track from Kashgar terminus crossing the 4730 meter high Khunjerab Pass mostly aligned along the Karakoram Highway, thus linking Pakistan with China's rail network.

https://en.wikipedia.org/wiki/Khunjerab_Railway#/media/File:KKH.png

In addition the CPEC project envisages establishing 29 industrial parks and 21 special economic zones with 11 of these in Balochistan alone, along the corridor. The CPEC also includes power projects with an estimated 21,690 MW power production. Seeing the alignment, CPEC will run through Gilgit-Baltistan, which is an integral part of India by virtue of having been part of the princely state of Jammu and

Kashmir (J&K) that acceded to the Indian Union in October 1947.

Advantage Pakistan

Pakistani and Chinese geostrategic concerns have historically remained largely congruent and converge around many common areas and bilateral interests. The relationship between the two countries mainly hinges on four shared areas of interest that include 'economic cooperation, energy security concerns of both countries, internal security, and geostrategic interests to balance India.

China is the major beneficiary of the CPEC, however, Pakistan too is an equal partner and stands to benefit both in the economic and strategic domains. Pakistan has received \$40 billion as military and economic aid from US since 1950, of which \$ 23 billion is post 9/11. China has now promised a package of \$46 billion mostly for the CPEC and allied projects spread over six years. The corridor will give a major boost to Pakistan's sagging economy leading to its revival and will also ease the energy crisis. The corridor will transform Pakistan into a regional trade hub and energy transit corridor, once completed. All these factors could have a huge impact on the industrial, agricultural and overall economic growth and development of Pakistan. Presently in a manner of speaking, and of its own accord Pakistan has isolated itself from trade along the land route as it does not allow trade with India through its territory. With the CPEC, Pakistan can become a hub of trade with Central, South and West Asian countries. According to experts, the completion of the corridor and Gwadar would make it an economic hub and create a strategic nexus between Pakistan, China and Central Asia, generating billions in revenue and providing shorter land routes. It would provide links from the Caspian Sea to the Strait of Hormuz, and enable Gwadar to compete

with Persian Gulf ports.

A major strategic advantage that accrues to Pakistan is that, China has strategic and economic stakes in the corridor which effectively balances India. The corridor can also be exploited to move military material and wherewithal in the event of impending hostilities with India. As the corridor passes through POK , any security threat will directly impact Chinese assets and interests. This will embolden Pakistan to create more trouble for India , as any reaction by India will also impact Chinese interests. A lesser known aspect of the CPEC arrangement is the likely sale of eight diesel-powered attack submarines to Pakistan by China. Though these are purportedly armed with conventional weapons, but it nonetheless leads to Pakistan upping the ante in the Indian Ocean. The sale will further cement China as Pakistan's principal arms supplier, and complicate the military balance at sea in the subcontinent.

The investment and projects do face uncertainties and obstacles, on account of not only the security situation but also local politics. Leaders in Baluchistan and Khyber Pakhtunkhwa are already up in arms against the proposed change of the alignment. The fact that as Chinese companies will be employing workers from China, and hence will not benefit the local populace is not lost in the insurgency prone underdeveloped region. Chinese nationals have been targeted in the past by extremists and given the ongoing insurgency, the security and safety of Chinese is a major concern. Pakistan's commitment to provide a 12,000-man security force, which may include a 5000 strong Special Services Group(SSG) component, considered adept at anti terrorist operations is an indication of the seriousness of the challenge. As per some reports China too plans to deploy its Special Forces to safeguard their nationals and assets. Terror attacks on Chinese workers as has happened earlier,

by militants, with links to Pakistan could not only jeopardise the project but could also adversely impact Pak- China relations.

Chinese Strategic Gains

China's strategic interests and involvement in Pakistan have contributed to Pakistan's military arsenal and Nuclear capabilities . With the United States drawdown from Afghanistan and the shifting focus to ISIS, US involvement in the region has declined, and China seems to be effectively filling the vacuum created by America's diminishing interest. The August 2015 "Karamay Declaration" detailed Pakistan's role in China's global scheme.

The CPEC is pivotal to the 'OBOR' and the investment is part of the package of Silk Road initiatives to build new trade corridors and markets for China's West, enabling export of excess industrial capacity with access to the virtual tri-junction of South Asia, West Asia and Africa. The corridor equally importantly provides alternative transportation routes to and fro China other than the vulnerable Malacca Strait. Control of Gwadar allows China to transport oil from the Middle East via Pakistan's land routes to Xinjiang, thus mitigating the ' Malacca Dilemma' and ensuring China's energy security. The corridor once completed will provide a much shorter route than the 12,900km route from the Persian Gulf through the Strait of Malacca to China's Eastern seaboard. It will also further China's policy of opening up and developing its Western regions because of its geographical proximity to these areas. Development of the Xinjiang region will contribute to containing the unrest by Uighur separatists who have been fomenting violence. Some of these separatists have sanctuaries in Pakistan and Afghanistan, and China has asked for the Uighurs to be deported back. The deep sea port of Gwadar will also

facilitate the People's Liberation Army Navy to establish a presence in the Indian Ocean, giving China the ability to protect the maritime oil transport routes from the Middle East and investments in Africa. China will have a direct and dedicated access to the Indian Ocean enlarging strategic footprints and thus changing the regional power matrix. Along with the process of regional economic integration, the CPEC will contribute to the development of closer relations and cooperation between China and the countries of Central, Western and South Asia.

The seamless integration of China and Pakistan has adverse security implications also, as the already restive Xinjiang region will be more vulnerable to the many jihadist elements in Pakistan and Afghanistan. China's soft underbelly Xinjiang will inevitably be more prone to Pakistan-based jihadist elements exporting their terror ideology to China.

The prevailing environment of insecurity, militancy and violence may pose a serious threat to the construction of the corridor, however the strategic, economic and political stakes being high, both Pakistan and China will ensure the completion of the project. The project once complete will be a fate changer for Pakistan as it strategically balances India, dominates Afghanistan and provides a much needed critical boost to the economy. For China the project is pivotal to the OBOR, an alternate to Malacca Straits and provides an access to the Indian Ocean region.

India can not and should not endorse the CPEC project, but there is little that can be done except formal protests. While China seems to have found an answer to the 'Malacca Dilemma', it is India now which faces the devil's alternative, whether or not to be part of the OBOR. The CPEC is an 'Indian dilemma' much like China's 'Malacca Dilemma'.

Implications of China's Infrastructure in TAR & POK

Infrastructure is Power in its Broadest Sense. C Raja Mohan a leading expert on China and strategic affairs contends that China's road-building is unlikely to lead to a military confrontation between the two countries, he believes that the current expansion of Chinese infrastructure in Tibet confronts India with a different set of challenges. For one, it brutally exposes the poor state of transportation networks on the sub-continental side – the Southern slopes of the Himalayas. Raja Mohan states that the message from China is clear: on the frontiers, infrastructure is power in its broadest sense. The awful state of infrastructure on the border is the result, incredibly enough, of a deliberate policy in New Delhi over the last several decades, not to develop connectivity along the frontiers.²⁹ The yawning gap in the quantity and quality of India and China's infrastructure near the LAC has multiple implications. Militarily, these implications for India are far reaching. Though strategic thinkers like Raja Mohan may feel that a military confrontation is unlikely, however, India needs to recognize that China respects strength, and ongoing peace and tranquility is possible only if India builds capabilities. It is also an imperative that India negotiate from a position of near parity, and for that we need to create the requisite infrastructure along our borders in addition to enhancing military capacities.

'Go West Policy' While analysing the impact of the QTR, Phunchuk Stobdan opined that primarily intended to boost the "Go west" campaign under the 10th Five Year Plan, the Golmud-Lhasa railway line alters the military balance, but has been ignored by India. The military implications for China include a reduction in military expenditure and an easing of the logistical difficulties faced by the PLA, in terms of supplies and garrisons along the frontiers. The implications of such activity for India are significant.³⁰

The CPEC project implies that the Chinese presence and strategic interests in Pakistan and specially in Pakistan Occupied Kashmir (PoK) will become quasi permanent. The CPEC has direct strategic and security implications for India. It also needs to be factored that by signing the Border Agreement with Pakistan in 1963, China indirectly became a third party to the J&K dispute. Though China's stated position is that 'Kashmir' is a bilateral issue between India and Pakistan, however, now with the CPEC, Chinese economic and strategic interests make him a direct stakeholder in a hitherto-bilateral issue. Pakistan has already ceded over 5100 sq kms of Saksham valley in POK to China in a 1963 agreement. While the Sino-Pakistan axis is not new, the sheer magnitude of the CPEC makes it clear that it is not only dictated by economic considerations but more to exploit strategic payoffs. CPEC enhances the collaborative and collusive threat China and Pakistan pose to India. In the event of a military confrontation, CPEC infrastructure will facilitate an uninterrupted and timely flow of military aid to Pakistan, thus enhancing the war endurance.

Another major concern for India will be the deployment of PLA troops in POK to safeguard Chinese interests and assets. Any perceived threat to these interests may elicit a military response and has the potential to spiral into a conflict duly aided or manipulated by Pakistan. Pakistan will now be emboldened and up the ante in employing terrorism as an instrument of state, and further bolster the quarter century old proxy war against India.

China with access to Gwadar will wield a powerful influence in the Indian Ocean even though geographically speaking China is not an Indian Ocean power. Gwadar will also put China and Pakistan in a strategically advantageous position along the Arabian Sea compounding Indian concerns from China's stakes in Hambantota in Sri Lanka, Sittwe in

Myanmar and Chittagong in Bangladesh, wherein China retains the options of positioning naval assets. Gwadar, with a 40 years management control by China is the westernmost 'pearl' and completes the 'string' to isolate India. A restructured and modernised PLA as demonstrated during the 03 September military parade at Beijing is a far greater threat as it prepares for a regional war, and addresses the four critical domains of Seas & Oceans, Space, Cyber and Nuclear. Military coercion has been exploited by China, more so in the last few years with some major and well timed intrusions along the LAC. India is likely to face a more assertive and aggressive PLA along the LAC as part of Chinese military coercion, to ensure that India does not in any way interfere or retard the progress of CPEC, which is pivotal and crucial to China's OBOR. Over 60% of India's energy needs are transported through the Strait of Hormuz, which are vulnerable to interdiction, hence any Chinese naval assets in the Indian ocean threaten India's energy and economic security. The CPEC is a win-win for Pakistan and China and a lose-lose situation for India. So far, taking a conservative stance, India has expressed its reservations on the proposed corridor as it passes through Indian territory occupied by Pakistan.

Implications For India.

Border management – China/PLA has concentrated on the Three Rs for the border management i.e. Roads, Radars and Reserves. PLA troops are located on road heads and have the ability for quick reaction/action given the mobility provided by the road connectivity and early warning by the surveillance radars which have been liberally deployed all along the LAC.

Territorial Claims - The road connectivity facilitates China's claims to the disputed territories, and brings settlements closer to the LAC.

Build Up - China has effectively reduced the hitherto build up capability to wage a war against India from a two campaigning seasons (spread over two summers) to a single season. Employing the multi dimensional infrastructure available, China has now the capability to build requisite forces in a few weeks time. This capability is further enhanced as PLA Rapid Reaction Forces can be airlifted to augment the combat power deployed in situ and moved by the extensive Road Network. This is a significant military threat as it enhances the PLAs ability to engage in a short swift and decisive war.

Application of Combat Power The infrastructure gives China the capability to sustain 30-32 divisions including 5-6 rapid reaction forces.³¹ Coupled with creation of logistics installations which house over 500,000 tonnes needed to support the combat forces, China has the ability to maintain the momentum and logistically sustain a war from within the resources deployed in TAR for the initial 10 to 12 days. The supply chain of course would replenish these stocks from Day one.

Employment of Strategic Assets Facilitates deployment and employment of assets of Strategic Assets to interdict own road-rail communication, vital bridges and concentration of troops.

Mechanised Forces The existing infrastructure has also given China the flexibility to rapidly move and deploy mechanised units given the terrain in TAR and exploit these for a quick manoeuvre and capture of claimed Indian Territories and sensitive and high visibility areas specially so in Eastern Ladakh and North Sikkim.

Flexibility of Operations The infrastructure in TAR provides multiple options and the flexibility to PLA for application of its combat power in any chosen sector.

Military Expenditure The military implications for China include a reduction in military expenditure in maintaining the border defence forces and an easing of the logistical difficulties faced by the PLA.

Options For India

The options for India are limited. India has no choice but to safeguard economic and security interests, by building deterrence and dissuasion capabilities and enhancing capacities especially so along the Northern borders and Maritime domain. India can continue to lodge protests, but as the stated position is that Kashmir is a bilateral issue between India and Pakistan, the protests will not be able to either stop or retard the progress of the project. The only other option for India is to become an integral part of the OBOR and further the BCIM corridor.

The prevailing environment of insecurity, militancy and violence may pose a serious threat to the construction of the corridor, however the strategic, economic and political stakes being high, both Pakistan and China will ensure the completion of the project. The project once complete will be a fate changer for Pakistan as it strategically balances India, dominates Afghanistan and provides a much needed critical boost to the economy. For China the project is pivotal to the OBOR, an alternate to Malacca Straits and provides an access to the Indian Ocean region.

Comprehensive National Power. India will need to optimise all elements of national power and maximise its use of soft power or smart power, to include Diplomatic, Economic, military, Informational, Cultured and Political. It needs to review the 'Look East Policy' or to put it in Prime Minister Modi's words "Act East Policy" to make it more dynamic and purposeful and ensure initiatives with Japan, Vietnam, Laos, Cambodia, Myanmar and Mongolia are carried to their

logical conclusion. india needs to 'Bind to Balance'

Focus on Infrastructure The roads are the first basic step, the airfields, advanced landing grounds and logistics installations can only be constructed once the road communication network is in place. Mr Modi's government has demonstrated the resolve to take and implement hard decisions in the interest of National Security. Some of the initiatives which the government needs to take on priority in a time bound manner are enumerated.

Land Acquisition Act 2014 Amend 2014 act to ensure it is not applicable upto a depth of 100 kms along our Northern Borders and 50 kms along our Western borders .

Infrastructure Development Plan Prepare an integrated infrastructure development plan for the Northern borders with a new framework. The NHAI should be made responsible for ensuring construction of main and alternate highways as also the state highways and major arterial roads. The feeder roads to be constructed and maintained by the BRO and the last mile connectivity be undertaken by the Army from the operation works funds and integral engineering resources. The many weaknesses of the BRO and present capabilities and systems are well known and need no emphasis. The BRO has outlived its utility, and is a defunct organisation. It is well understood that the construction of the roads need to be outsourced and no private company will deploy costly equipment and resources for only six months a year in hostile terrain with issues of internal security. The working season in high altitude being only six months. Hence it is for consideration that a cluster of roads be outsourced far end to end connectivity. This will ensure optional employment of equipment and resources as also profitability for the construction companies and more importantly seamless connectivity for security forces and the people.

Autonomous Body The requisite clearance required to undertake projects in the interest of National Security should not be held hostage to the various environmental clearances required and court rulings. There is hence a need for an Apex body to ensure the conceptual framework, execution and monitoring progress. We do not need to look far, DMRC is a perfect example of a project implementation given the will, authority and resource with accountability.

Capability Building China respects strength. It is imperative that India builds capabilities and also enhances existing capacities. The raising of the accretion forces including the mountain Strike Corps is a long overdue capability, the government must ensure the fiscal support to ensure that the planned timelines are met and the Mountain Strike Corps has full compliments and equipment as early as feasible.

Resolving the Border Question There is an apparent urgency on the part of both India and China to resolve the 'Boundary Question' starting with clarification of the LAC. India Prime Minister Narendra Modi urged visiting Chinese President Xi Jinping to resolve the boundary dispute after holding talks in New Delhi on 18 September 2014 that lasted much longer than the stipulated 90 minutes. Mr Modi said he had raised serious concerns over the issue with Chinese President Xi Jinping. He said the boundary dispute must be resolved soon. Reiterating that peace on the border has to be the foundation of the trust and relationship between the two nations, Mr Modi called for an early clarification of the "line of actual control" which presently separates the two countries. He said if this happened "we can realize the potential of our relations." 32 Resolution of the Boundary Question and delineation of the LAC is the way forward as the two Asian giants move ahead to a cooperative strategic partnership leading to a long term peace , stability and development.

Bind To Balance India should further strengthen the strategic relationship and cultural and diplomatic linkages with Japan, Vietnam, Mongolia, Cambodia, Australia, and the neighbourhood. India should also give further impetus to the “Act East Policy” , balancing China’s growing influence by ‘Binding to Balance”.

CPEC. India can not and should not endorse the CPEC project, but there is little that can be done except formal protests. While China seems to have found an answer to the ‘Malacca Dilemma”, it is India now which faces the devil’s alternative, whether or not to be part of the OBOR. The CPEC is an ‘Indian dilemma’ much like China’s ‘Malacca Dilemma’.

Chabahar Port Prime Minister Narendra Modi’s May 16 visit to Iran has finally led to the much-awaited signing of the pact for India to develop the strategic Chabahar port. The Chabahar Port will be a game changer for India because it will provide connectivity to Afghanistan, Iran and Eurasia, strategically outflanking an intransigent Islamabad. It is also a counter to the China-Pakistan Economic Corridor (CPEC).
33 India aims to connect Iran’s Mashhad, near the Caspian Sea, with Zahedan, next to the Afghanistan border, via a 900-km rail line with the Chabahar Port will unlock a new gateway to Central Asia and Europe, bypassing the Pakistan-China arc. Through a Tripartite Trade and Transport Agreement, India plans to link with the Afghan highway through the Zahedan-Zaranj-Delaram route in Nimroz province to shore up Kabul and also open trade routes with Central Asian (CA) republics, particularly Tajikistan. India needs to ensure that momentum to complete all projects linked to Chabahar port is maintained. This much delayed project has to be a priority to negate the many advantages which Gwadar offers to Pakistan-China axis.

The present force deployment along our Northern borders is effective and capable of defending our territories, lest it may seem to some that the nation is not prepared to defend its territories. However, it is not a cost effective model, as it is based on ab-initio deployment of our defensive forces all along the 3488 km long border.

In addition to the defence needs, the road – rail – air infrastructure once created will give the much needed impetus to development of our remote border region and contribute to education, health, tourism and economic benefits accruing to the people of our border region. Mr Modi's Government has given the desired focus, the need is to ensure that the intent and plans are translated and results seen and felt on the ground.

END NOTES

1. <http://mha.nic.in/brdrnmngmnt>
2. *The Times of India*, 27 Sep 2014.
3. Monika Chansoria, *China's Infrastructure Development in Tibet, Evaluating Trendlines Manekshaw paper No 32, 2011.*
4. *Ibid.*
5. *Ibid.*
6. *Ibid.*
7. *China opens new highway near Arunachal border, The Hindu, November 1, 2013.*
8. *Expansion of the Karakoram Corridor; Implications and Prospects, Senge H.Sering. IDSA Occasional Paper No.27.*
9. *Ibid.*
10. *Sino – Indian Border Infrastructure : An update, ORF occasional paper # 42 May 2013. Rajeswari Pillai Rajgopalan and Rahul Prakash*
11. *China to wrap up Tibet railway extension line, Xinhua English, March 8, 2013 .*
12. *Infrastructure Development and Chinese War Waging Capabilities in Tibet – Shailender Arya, Journal of Defence Studies, Vol 5. No 3 July 2011.*
13. *Expansion of the Karakoram Corridor; Implications and Prospects, Senge H.Sering. IDSA Occasional Paper No.27.*
14. *Infrastructure Development and Chinese War Waging Capabilities in Tibet – Shailender Arya, Journal of Defence Studies, Vol 5. No 3 July 2011.*
15. <http://ibnlive.in.com/news/china-deploys-su27-fighters-in-tibet-can-target-key-indian-air-bases/392790-2.html>.
16. *China's Infrastructure Build up in TAR and along the Indian Border : What India can Do, Mukul Raheja. Issue Brief Delhi Policy Group, Aug 2014.*
17. *Xinhua News Agency report, "Tibet's Biggest Logistics Center to be Completed in 2009," cited in People's Daily, 10 December 2008.*
18. *Infrastructure Development and Chinese War Waging Capabilities in Tibet – Shailender Arya, Journal of Defence Studies, Vol 5. No 3 July 2011.*
19. http://www.idsa.in/idsastrategiccomments/Chinashouldnotusewaterasathreatmultiplier_PStobdan_231009.html
20. Vivek Raghuvanshi, "India to Modernize Road Networks in Border Areas," *Defence News, May 07, 2010, http://www.defencenews.com/story.php.*
21. *India's Worrying Border Infrastructure Deficit By Sudha Ramachandran , The Diplomat, June 19, 2014.*
22. *C raja Mohan, "China roadmap is India wake-up Call," The Indian Express, 21 December 2004.*
23. *Rajgopalan and Rahul Prakash op. cit., p 6.*

24. *Ibid*, p 8.
25. *Ibid* , p 10.
26. Ramachandran , *op. cit.*
27. *The Times of India* , 27 Oct 2013.
28. Rajat Pandit ,*Times of India* 24 Feb 2014.
29. *The Indian Express*, December 21, 2004. C RAJA MOHAN.
30. Chansoria, *op. cit*, P 25.
31. Ramachandran , *op. cit.*
32. http://www.globalsecurity.org/military/world/war/india-china_conflicts.ht
33. *Hindustan Times* 25 May 2016.

CENJOWS PUBLICATIONS

SEMINAR PROCEEDINGS		Price (Rs)	Year
1	Indian Way of War Fighting	395/-	2008
2	Indian Experience in Force Projection	300/-	2008
3	War Against Global Terror	495/-	2008
4	Leveraging India's Soft Power as a Strategic Resource	250/-	2010
5	The Strategic Importance of A& N Islands	100/-	2010
STUDY			
6	India's Comprehensive National Power: Synergy through Joint Decision Making	800/-	2009
7	Uniform Code of Military Justice	100/-	2009
8	India's Strategic Stakes in Afghanistan	295/-	2010
9	An Essay on the Armed Forces Tribunal Act	100/-	2010
10	Defence Industrial Base-2025	850/-	2010
11	Integrated Force Projection by India	750/-	2011
12	Space Security : Indian Perspective	550/-	2011
13	Employment of Special Forces: Challenges and Opportunities for the Future	795/-	2012
14	Indo-US Defence Cooperation	225/-	2012
15	Water A Source for Future Conflicts	995/-	2013
16	Role of Pakistan in India's Energy Security	250/-	2013
17	Implementation of RTI Act 2005 in Armed Forces and Its Implications	450/-	2013
18	Rise of Islamists in Bangladesh	95/-	2014
19	Sino-Pak Nexus and Implications for India	350/-	2015
ARTICLE (Handbook/Monograph/Issue Brief)			
20	India-Oman : A Perspective (Handbook)	100/-	2010
21	Afghanistan Future Scenario and Intentions of Key Players	100/-	2012
22	India's Quest for Defence Equipment Policy	100/-	2013
23	Chinese Chequers in the Indian Ocean Region (Monograph)	100/-	2014
24	Understanding of Iran An Issue Brief (Monograph)	100/-	2014

25	India's Foreign Policy Time for a Rethink (Issue Brief)	100/-	2014
26	Training & Technology Requirements for Anti-Maoist Operations (Issue Brief)	100/-	2014
27	CENJOWS Debate on Jointness (Issue Brief)	100/-	2014
28	2050 : Shape of Things to Come (Issue Brief)	100/-	2015
SYNODOS PAPERS			
29	LTTE & Sri Lanka : A Way Ahead	50/-	2009
30	India's Options in the Emerging Political Scenario of Bangladesh	50/-	2009
31	Situation in Nepal, Implications and Policy Options for India	50/-	2009
32	Myanmar India Relations: An Appraisal	50/-	2009
33	Indo-US Relationship : A Perspective	50/-	2010
34	Afghanistan Past Present and A Way Ahead	50/-	2010
35	Developments in Pakistan	50/-	2010
36	Southeast Asia : Our Foreign Policy Priority	50/-	2011
37	Review of India's Civil Nuclear Energy Programme: Post Fukushima Disaster	50/-	2011
38	Implications of Tactical Nuclear Weapons in India's Neighbourhood	50/-	2011
39	Asia Pacific Region Ballistic Missile Defence Scenario 2020 Recommended Approach for India	50/-	2012
40	Democratization of Myanmar and its Implications for India	50/-	2012
41	People's Liberation Army Air Force (PLAAF)	50/-	2012
42	Emerging Trends in the Ballistic Missile System	50/-	2013
43	Is India Prepared to Exploit the Opportunities Offered by Space? An Assessment	50/-	2013
44	Sino-Pak Economic Corridor : An Appraisal	50/-	2013
45	Deciphering Uighur Unrest in China	50/-	2014
46	Logistic Parks : The Game Changers	50/-	2014
47	Defence SEZ A Catalyst for Self Reliance in Defence Sector	50/-	2015
48	Indigenisation in the Defence Industry – Is Increasing FDI the only Answer?	50/-	2015
49	Employment of Non-Lethal Weapons (NLWs) in India in the Emergent Warfare Context	50/-	2015