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INDIA LACKS INFRASTRUCTURE ALONG THE CHINA BORDER **or** **BORDER ROADS ORGANISATION - FUNCTIONAL OR DYSFUNCTIONAL**

"TO GET RICH, ONE MUST BUILD ROADS"

- An Ancient Chinese Proverb

The 73 day Doklam standoff has been apparently resolved at the politico-diplomatic level. The peaceful resolution should be attributed to a firm and resolute stand by the Indian Army at the faceoff site. The tactical level demonstration of strength was possible as the Indian army deployment at Doka La dominates the Doklam Plateau fortunately duly supported by a functional road constructed by the Army Engineers through what is commonly known as an Operational works. This sort of an infrastructural advantage along the 3488 km India China border and the Line of Actual control (LAC) is lacking in most areas. It is also reported that the PLA has constructed a road joining Merug La (North of Doklam) to South Doklam extending to Jampheri Ridge about four to five Km East of Doka La or the earlier face off site, creating certain strategic vulnerabilities for India. China has once again demonstrated that roads are the key to military domination along the Himalayan borders. It will be prudent to analyse the infrastructure along the border areas to deduce relevant lessons and chart out an implementable and pragmatic action plan to ensure continued peace and tranquillity along the Line of Actual Control (LAC). On account of differing perceptions of the LAC, an assertive and aggressive China and a growing new India, the peace and tranquillity along the LAC will be constantly and continuously under stress, with increase in frequency, intensity and depth of transgressions, leading to more and more 'StandOffs'. The Doklam is likely to be the new normal. The critical question is does India have present relevant and future ready organisations and structures to meet the challenges and construct the requisite infrastructure especially along the LAC in an acceptable time frame.

The 1962 war was undoubtedly a debacle for India. Wars always bring out certain lessons, both for the victor and the vanquished. Though the Henderson Brooks report stays buried in secrecy, one lesson that India learned was that the nation needs an effective and professional Armed Force capable of defending its frontiers. China on the other hand having crossed

the high Himalayas and reached the foothills in certain areas, unilaterally withdrew, having realised the enormity of the task of sustaining a force without an adequate road network. The PLA on 20 Nov 1962 was staring at a long and harsh winter, without the means to survive and sustain in the underdeveloped high altitude captured Indian territories. China learned its lesson well and has gainfully applied its energy and ample resources to create a world class, state of the art, multi modal, multi dimensional infrastructure in Tibet Autonomous Region (TAR). This includes a vast road and rail network, airfields, oil pipelines, logistic installations, habitat and warehousing. The infrastructure developed has also helped China integrate Tibet, settle its Han majority, thus changing the demographic pattern in this remote and generally hostile region.

India on the other hand shied away from constructing roads and building Infrastructure along the Tibet border in a mistaken belief that lack of roads will degrade the China threat, and deter deep incursions in the event of another war. As a misplaced strategy India did not construct any 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 enemy". 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. The China Study Group approved 73 roads to be constructed in 2005 and to be completed by 2012. As per July 2017 update to Lok Sabha construction of 73 strategic roads was revised with deadlines extended to 2019-2020, this includes 43 by the Ministry of Defence (MoD) and 27 by the Ministry of Home Affairs, of which only 21 roads by March 2017 and 30 roads by July 2017 have been completed and remaining are under construction as progress was retarded. BRO is constructing 63 out of these 73 roads. The delays are attributed to multiple reasons like wildlife conservation and environmental approval, insurgency related security hurdles, delay in land acquisition by the states, inaccessible terrain, inclement weather, poor planning, construction capacities, lack of will to take hard decisions, funding and more importantly a now inefficient and ineffective BRO. 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. A brief analysis of roads along the India - China border is indicative of a long period of neglect as also the inference that BRO which was once an effective organisation has outlived its utility.

Ladakh is connected by two major passes, Zojila which remains open for approximate five months an year and Rohtang 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 and the Army for their sustenance during the winters.

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 better and 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. Sikkim too remains connected from Siliguri with a single road axis prone to disruptions during monsoons and winters. The 319 km road from Tezpur to Tawang remains in poor state, and takes over 10 to 12 hours. In the middle sector own roads are 30 to 70 kms from the LAC vis-a-vis 5 kms of China, whereas in Sikkim and Tawang sectors own roads are 10-15 kms wherein China has last mile connectivity to the passes. 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 the LAC and in a few place about 20 kms away. To summarise Road Heads in India are 05 to 50 kms from the LAC whereas China has constructed roads right up to its perception of the LAC in most areas. With an anticipated increase in the frequency and intensity of transgressions by China, it is an imperative that requisite infrastructure be developed in the fastest possible time frame.

There is a need to analyse and review the structure, organisation and effectiveness of The BRO. There is no doubt that the BRO has done an exceedingly excellent work under the most challenging and difficult of situations in construction and maintenance of roads and other Infrastructure along our vast and mostly troubled borders. The key question is whether the BRO is optimally configured to meet the growing demands of the armed forces and the aspirations of the people residing in the border areas.

The BRO formed on 7 May 1960 was tasked to secure India's borders and develop infrastructure in remote areas of the north and north-east states of the country. The BRO develops and maintains road networks in India's border areas and friendly neighbouring countries. It is staffed by officers and troops drawn from the Indian army and Officers from the Border Roads Engineering Service and personnel from the General Reserve Engineer Force (GREF) form the parent cadre. Currently, the organisation maintains operations in twenty-one states, one UT (Andaman and Nicobar Islands), and neighbouring countries such as Afghanistan, Bhutan and Myanmar. The BRO operates and maintains over 32,885 kilometres of roads and about 12,200 meters of permanent bridges in the country. The BRO comprises of eighteen projects , nine each for East and West. In order to ensure coordination and expeditious execution of projects, the Government set up the Border Roads Development Board (BRDB) with the Prime Minister as Chairman of the Board and Defence Minister as Deputy Chairman. Today, the board exercises financial and other powers but is now chaired by the Raksha Rajya Mantri (RRM) a dilution which needs correction. The BRO though manned by personnel from the MoD and raised to ensure infrastructure for security

concerns was functioning under the Ministry of Road Transport and Highways (MoRTH), a not very neat arrangement as the funds were allocated by MoRTH. In a bid to boost border connectivity, the BRO has now been entirely brought under the MoD. The BRO budget is approximately a thousand crores with a manpower of 35000 including 1300 officers.

According to wikipedia, to provide connectivity to the army and border guarding forces, BRO is building four hundred ten 2-lane class-70 (heavy load bearing including tanks) road bridges along the China border which includes 144 in Arunachal Pradesh (75 already under construction and will be completed by 2020), 100 under construction in J&K, 55 under construction in Uttarakhand, 40 in Sikkim and another 25 in Himachal Pradesh. The concern is that the annual capacity and plan of construction by the BRO as per their own claims and targets is 3 km of bridges. In November 2017 BRO also announced the plan to construct 17 road and rail tunnels, with a total length of 100 km, on some of the 73 strategic roads on Sino-Indian border to provide year-round all-weather rail and road surface connectivity. The fixation with 73 GS roads envisaged in 2005 continues though a review is long overdue. As the roads are nowhere near completion it is not considered prudent and pragmatic to plan for more. Even the 73 planned roads are too little too late.

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. 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. China has concentrated on the three Rs along the LAC 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. In addition to an effective and efficient border management this facilitates China's claims to the disputed territories, and brings civil settlements closer to the LAC.

The roads are the first basic need, the airfields, ALGs and logistics installations can only be constructed once the road communication network is in place. India needs to revamp the BRO which has in effect become a dysfunctional organization on account of Human resource issues of status equivalence and a large number of low medical personnel who can not be deployed in mountain and high altitude region in addition to other factors. During a visit the Parliamentary Standing Committee on defence was

appalled to see the progress of work on the road to Tawang. The Chinese on the other side of the Himalayas have constructed over 60,000 kms of road, 5 Air Strips besides the railway line of 1956 km length to Lhasa, which is under extension to Nepal and Yatung close to Sikkim and the Doklam standoff site.

It is time the government takes immediate and urgent measures to build the requisite infrastructure to address the security needs as also facilitate mainstreaming of the border people and ensure development of the region. Some of the initiatives which the government needs to take on priority in a time bound manner are enumerated.

Amend the land acquisition bill 2014 to exclude 100 kms along our Northern Borders and 50 kms along our Western borders, required for defence needs ie national security.

There is also a need to evolve an integrated infrastructure development plan where in the NHAI is responsible for constructing the main arteries, a revamped Border Road Organisation mandated to construct the feeder roads and the army to ensure last mile connectivity through its integral resources of operational works. In addition to the plan the government should constitute a National Infrastructure Development Board under the Niti Aayog comprising of all relevant ministries including the representatives from the Army and Indian Air Force, fully empowered and accountable to execute and monitor time bound development.

The Border Roads Organisation be reconstituted and reorganized from a work charge organization to a corporation on the lines of Delhi Metro Rail Corporation. Reforms in established systems and organizations which have failed to deliver is a must to enable them to perform. BRO must restrict itself to only GS Road construction. GS Works constitute 65% of BROs total expenditure which is approximately Rs. 6,000 cr.

The HR management of the BRO has been severely affected post acceptance of the Sixth Pay Commission recommendation of NFU to members of the GREF. The overall Command being generally and nominally exercised by Army Officers as existed prior to that stage was affected due to a disparity in relative ranks to create a situation that has aggravated further to cause unfortunate and unprecedented management issues. If the BRO is to serve its stated mission with any modicum of efficiency and professionalism, the imbalance in rank and status issues between the military and civil officers of the organisation require to be settled foremost. The grant of NFU to Civilian GREF Officers has adversely impacted the traditional primacy of the command and control of the BRO and its Projects being with Military personnel. The grant of NFU to Services Officers is an imperative to rectify the anomaly.

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

China respects strength and exploits the weak. It is imperative that India builds capabilities and enhances existing capacities. The BRo needs to be reorganised and the infrastructure development integrated and adequate funds sanctioned. Paucity of funds can not be allowed to jeopardise national security.

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