



China's Railway Project:

Where will it take Tibet?

The signed articles in this publication do not necessarily reflect the views of the Tibetan Government-in-Exile.

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“..In just a few years to come, Wuhan will use electricity from Sichuan, Shanghai will burn natural gas from Xinjiang, people from the eastern regions will arrive at Lhasa or the “sunshine city” by train, and people of north China will drink sweet water from the Yangtze River.”

People's Daily, 18 March 2001

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Introduction

IN THE LATE NINETEENTH CENTURY, China resisted the European colonial powers' railway programs in Asia.¹ To show its scorn for railway, the Qing Administration, in 1877, bought the first foreign-built railway line in Shanghai—only to tear up the tracks and ban future constructions. In 1900, the Boxer Rebellion mobs attacked railway and telegraph lines between Beijing and Tianjin. In 1911, there was a revolt in Sichuan over the construction of railway lines, which ultimately culminated in the collapse of Qing Dynasty. The Chinese Empire and its populace then saw foreign railways as a threat to the survival of their culture and sovereignty. Today—a century later—history is repeating itself on the Tibetan plateau.

China's Tenth Five-Year Plan (2001-2005) decided to bring the railway to the heart of Tibet², sparking concerns among Tibetans. In the late 1950s Beijing built railway lines to connect the northern Tibetan area of Amdo (now designated as Qinghai Province³) with China. This, Tibetans maintain, is primarily responsible for the colonization of Tibet, accelerating the influx of Chinese settlers and resource exploitation in Amdo. They also point to Xinjiang, where the construction of railway lines in the late 1950s resulted in Chinese predomination in the areas north of Urumqi City.

The Chinese authorities stress that the railway is absolutely necessary to “consolidate national defense and unity of nationalities” as Tibet is located to the southwest border of the “motherland” with a boundary stretching over 4,000 km.⁴ Experts and diplomats believe that the railway will allow Beijing to deploy troops rapidly to quell unrest in the region and handle perceived threats on its borders.

The general pattern of Communist China's railway development shows that Beijing has paid relatively little attention to economic considerations; national defense and security have been its chief concerns.⁵ During the First and Second Five-Year Plans (1953-1957 and 1958-1962), most of the railway development was focused on environmentally hostile and geo-politically sensitive areas such as Xinjiang, Yunnan, Guangxi, Fujian, Inner Mongolia, Ningxia, Gansu, and Qinghai.⁶

Railway in Tibet: Historical Review

China's design for a railway network on the Tibetan plateau⁷ was conceived first by the Nationalist Government (1911-1949). In his blueprint for the reconstruction of China through the development of rail transport, Dr. Sun Yatsen, the then Director-General of National Railway, proposed to connect Lhasa with China. However, many people then thought the proposal “fanciful and insurmountable”.⁸

In the early 1950s, Communist China revived the idea of building a railway network on the Tibetan plateau when the Korean War and the deterioration in Sino-Soviet relations forced the Communist government to move its military industries to Central China. Perceiving threats from “imperialist America” and the “revisionist Soviets”, Mao ordered the speedy construction of railway lines in Sichuan, Guizhou and Yunnan even if this involved taking out railways tracks in other parts of China.⁹

The urgent need for a railway became more acute when the Communist government decided to explore and exploit natural resources in Xinjiang, Tibet, Inner Mongolia and Manchuria. Zhou Enlai articulated China’s needs for the natural resources of these regions in 1957 when he stated:

In the Han-inhabited regions there is not enough land available for reclamation, and underground natural resources in areas are not so abundant as elsewhere. Development of the natural resources in areas populated by the fraternal minority nationalities provides popular support for the nation’s industrialization. However, these natural resources have remained untapped for lack of labour power and technological expertise. Without mutual assistance, especially assistance from the Han people, the minority peoples will find it difficult to make significant progress on their own.¹⁰

By then, thousands of Tibetan and Chinese prisoners were already incarcerated in a chain of large labour camps spread across Amdo. The prisoners were engaged in road construction, exploitation of mineral resources, building of nuclear research centres and in running state farms for the People’s Liberation Army.¹¹

From 1956 the population of forced immigrants in this northeastern Tibetan region increased dramatically following Mao’s “Rustication” campaign. Millions of Chinese from the urban areas of eastern China were forced to the remote, sparsely-populated minority regions in the north and west of China.¹² In the first two years of the campaign, some 600,000 people were sent to Qinghai, Gansu, Ningxia, Xinjiang and Inner Mongolia.¹³

It is against this backdrop that we have to look at China’s program to expand the railway network on the Tibetan plateau.

China’s First Railway Project in Tibet (1958-1961)

The first railway project to connect the Tibetan plateau with China was implemented during China’s Second Five-Year Plan (1958-1962). In May 1958 Beijing began the construction of railway line from Lanzhou to Siling, the capital of Amdo Province. The line was completed in October 1959 and became operational in March 1961. This was the first time in history that the Tibetan plateau was connected to China by a rail link.

During the same period, China also constructed the line connecting Jiayuguan in Gansu Province with Urumqi, the provincial capital of Xinjiang Autonomous Region, and another connecting Lanzhou, the provincial capital of Gansu, with Baotou in Inner Mongolia.

The work to extend the railway line from Siling to the strategic town of Gormo¹⁴ was also launched in 1958 to coincide with the establishment of the Northwest Nuclear Weapon Research and Design Academy at Xihai City, the capital of “Tsojang Tibetan Autonomous Prefecture”.¹⁵ This nuclear research centre was popularly known as “The Ninth Academy”, as it was under the jurisdiction of the Ninth Bureau—the most secret organization in China’s entire nuclear program.¹⁶ For years, the

Academy served as a research centre for detonation development, radio-chemistry and many other nuclear weapons-related activities. It was responsible for designing all of China's nuclear bombs through the mid-1970s. (For details, refer to *Nuclear Tibet: Nuclear Weapons and Nuclear Waste on the Tibetan Plateau*, a report published by the Washington-based International Campaign for Tibet in April 1993).

The Siling-Gormo Railway Line project was halted in 1960 due to an intense famine caused by Mao's Great Leap Forward. This agricultural fiasco cost Qinghai province alone 900,000 lives and led to the dismissal of the province's over-zealous ultra-leftist Party Secretary Gao Feng.¹⁷

The project was revived after 17 years in 1977 and was completed in 1979.¹⁸ However, it was only in 1984 that the 845-km railway line became operational.

The Siling-Gormo Railway line provided access to the strategically important Ninth Academy in Xihai City, the Military airbase of Gangca, and the nuclear missile bases of Terlenkha¹⁹ and Xiao Qaidam (Tsaidam). The Ninth Academy was connected to the Siling-Gormo Railway Line by a 40-km link track. Terlenkha City—521 km by rail from Siling and half way between Siling and Gormo—is an artificial Chinese outpost developed originally to serve as the hub of a vast penal network and later as an industrial centre geared primarily for mineral exploitation.²⁰ Now raised to the status of city, Terlenkha was the first place on the Tibetan plateau to be turned into a labour camp and settlement for forced Chinese immigrants.

Railway to Lhasa City

In 1994, Beijing's leaders discussed a project linking Lhasa City—the heart of Tibet—with the rest of China by rail. During China's Ninth Five-Year Plan (1996-2000), route survey and feasibility studies on railway to Lhasa were conducted. As a result, the Tenth Five-Year Plan (2001-2005) allocated budget for construction of a railway line between Gormo to Lhasa.

1) Route Survey (1996-2000)

China's Ninth Five-Year Plan earmarked a budget to undertake a series of studies on the feasibility of this project. Number One Survey and Design Institute of China's Ministry of Railways was instructed to prepare blueprints for a Gormo-Nagchu-Lhasa Route and a Lanzhou-Nagchu-Lhasa Route, and Number Two Survey and Design Institute for a Chengdu-Nagchu-Lhasa Route and a Dali-Nyintri-Lhasa Route²¹. In September 2000, the two institutes submitted their blueprints to the Chinese Communist Party's Central Committee and the State Council.

Gormo-Nagchu-Lhasa Route:

This route stretches from Nanshankou of Gormo City in Amdo (Ch: Qinghai Province) to Lhasa City via Nagchu. The total length of track is 1,118 km, out of which more than 960 km will be at or above an altitude of over 13,000 feet above sea level. More than 560 km of the railway track will be laid on

permafrost earth. The annual average air temperature at this altitude is minus-one to two degrees Celsius, the lowest temperature being minus-40 degrees Celsius.

The line will pass through “Yushu/Kyegudo Tibetan Autonomous Prefecture”, Nagchu Prefecture, and Damshung and Te lung Dechen in Lhasa District before reaching Lhasa City.

The rail line will pass through 30 tunnels and bridges, covering a total distance of 37.5 km, and run parallel to Gormo-Lhasa Highway. Permafrost, the rarified atmosphere, and high elevation will be the major geographical constraints. The project, scheduled for 2001-2007, will cost 19.4 billion yuan (US\$2.34 billion), according to the 1995 static evaluation.

The first survey for this route was carried out in 1956-1960. Another study was conducted in the mid-1970s and a preliminary report was submitted in 1976. However, in 1984 the plan was abandoned due to financial and technological constraints.²²

Lanzhou-Nagchu-Lhasa Route:

This 2,126-km route stretches from Yongjing County near Lanzhou—the provincial capital of Gansu—to Lhasa City, via Nagchu Prefecture in the “Tibet Autonomous Region”. The line will pass through “Kanlho²³ Tibetan Autonomous Prefecture” in Gansu Province, “Golog²⁴ Tibetan Autonomous Prefecture” in Qinghai, the northern edge of “Kardze²⁵ Tibetan Autonomous Prefecture” in Sichuan and “Yushu/Kyegudo Tibetan Autonomous Prefecture” in Qinghai before joining Gormo-Lhasa Railway Line at Nagchu.

The line will pass through approximately 60 tunnels and bridges, covering a distance of 438.69 km, with the longest tunnel being 8.8 km. The project, scheduled for 2001-2038, will cost 63.84 billion yuan (US\$ 7.7 billion), according to the 1995 static evaluation.

Permafrost areas and the rarified atmosphere are cited as the major geographical constraints of this project.

Dali-Nyingtri-Lhasa Route:

This 1,594.4-km route stretches from Dali station in Yunnan to Lhasa, via Nyingtri town. The line will pass through the “Dechen²⁶ Tibetan Autonomous Prefecture” in Yunnan, Zayul town in Chamdo Prefecture of “TAR”, and Nyingtri town before reaching Lhasa City.

It will pass through 65 tunnels and bridges, covering a total distance of 710.65 km, the longest tunnel being 1.53 km. The project, scheduled for 2001-2038, will cost 63.59 billion yuan (US \$7.96 billion), according to the 1997 static evaluation.

Chengdu-Nagchu-Lhasa Route:

This route stretches from the Dujiangyan station near Chengdu to Lhasa City via Nagchu. The total length of this route is 1,927 km, of which 1,243 km will be inside the “TAR”. The line will pass through

“Ngapa²⁷ Tibetan Autonomous Prefecture” and “Kardze Tibetan Autonomous Prefectures” in Sichuan Province before joining with the Dali-Lhasa Railway Line at Zhongshaba near Nyingtri.

This route will incorporate approximately 70 tunnels and bridges with a total distance of 819.24 km, the longest one being 19.5 km. The project, scheduled for 2001-2038, will cost 76.79 billion yuan (US\$ 9.27 billion), according to the 1995 static evaluation. It will run parallel to the Chengdu-Lhasa highway, which is characterized by mountainous and rugged terrain. The line will have tremendous strategic importance as Chengdu is the headquarters of South-West Military Command under whose jurisdiction falls the People’s Liberation Army of the “Tibet Autonomous Region”.

2) Route Selection

In December 2000, China’s Railway Ministry spokesperson, Ren Xigui, said: “In the past years, a lot of work has been done, including the geographic location, detailed programs, and feasibility studies as well as technological and economic studies.” In February 2001, the Central authorities in Beijing reviewed the plans for four optional routes and gave top priority to the Gormo-Nagchu-Lhasa Railway project.

It is the shortest route linking Tibet’s capital to China and requires the lowest investment, running as it does through large swathes of flatlands, thus necessitating only 37.5 km of tunnels and bridges, which is only 2.8 percent of the total distance of the line.

It has the added advantage of proximity to Beijing (3,952 km) and Shanghai (4,326 km). The distance between Lhasa and Beijing is 4,063 km via Chengdu, and 5,204 km via Yunnan. Similarly, the distance between Lhasa and Shanghai is 4,366 km via Chengdu, and 5,089 km via Yunnan.

Furthermore, major research work has been undertaken on this route over the past four decades, whereas no such studies have been undertaken for the other three routes. Cheng Guodong, Director of the National Laboratory for Permafrost Engineering and member of the Chinese Academy of Sciences (CAS) says:

Through decades of effort, we have discovered laws and special characteristics of the frozen earth. During this period, we have participated in the construction of many engineering projects on the plateau, including the Qinghai-Tibet Highway and Qinghai-Tibet Oil Pipeline. Practice has proven that our technologies and measures for permafrost engineering are feasible.²⁸

Once the Gormo-Nagchu-Lhasa route is completed, it will be further extended to Shigatse and connected to Yunnan via Nyingtri. According to *People’s Daily*:

The above-mentioned four formulas [routes] each do have their advantages, as phased long-range plans, they are all feasible. They are all very important in terms of road network planning and traffic layout. The Yunnan-Tibet line and the Qinghai-Tibet line, in particular, both have their respective construction significance and role; they can’t replace each other. Both the No. 1 and No. 2 Institutes of the Ministry of Railways agreed that it is quite difficult to build a railway leading to Tibet and so the matter should be taken with great care.

But judged from the actual conditions, including initial stage preparation, the degree of difficulties involved in the project, the amount of investment, the working period for the project and the State’s present financial and material resources, the No. 1 Institute is of the opinion that it is appropriate to take

the Qinghai-Tibet line as the first choice at present. The 1,080 km-long Qinghai-Tibet line is currently the shortest among the four lines leading to Tibet. It will require less investment.

The No. 2 Institute stressed that the construction of the Yunnan-Tibet Railway will fundamentally change the communications and transportation conditions of Tibet and western Yunnan, and is of great political, economic and military significance to accelerating the regional economic development of Tibet and western Yunnan Province and to strengthen ethnic unity and national defense.²⁹

3) Budget Allocation

China's Tenth Five-Year Plan has committed an estimated 100 billion yuan (US\$12.1 billion) to large- and medium-size railway projects in West China. These projects are to increase the rail line coverage in western China³⁰ from the present 14,858 km to about 18,000 km by 2005—a net increase of over 3,000 km.³¹

The primary objectives of the extension of the railway link in western China are to consolidate Beijing's control in restive "minority areas" and to secure access to the oil-rich Central Asian Republics of Kyrgyzstan, Uzbekistan, and Kazakhstan, where the United States has already invested billions of dollars in oil exploration. The Ninth Five-Year Plan had invested 6.3 billion yuan (US\$ 725 million) on extending the railway link from Urumqi, the capital of Xinjiang, to Kashgar (southern Xinjiang) through Korla.³² This line became operational in December 1999.

The Tenth Five-Year Plan gave high priority to the construction of a railway line to Lhasa City; this is one of the four most important projects highlighted by the Plan.³³ The other mammoth projects are "west-to-east gas transfer, west-to-east power transmission and south-to-north water diversion". Interestingly, all the four major projects are somehow connected with Tibet and aimed at the exploitation of the plateau's natural resources to serve the power-hungry industries in China's prosperous eastern regions. This becomes clear from the following official Chinese statement:

The distribution of China's energies is seriously unbalanced. On the one hand, the expansive western areas have rich deposits of natural gas, petroleum, hydroelectric power and other important resources, huge volume of hydroelectric power is wasted there; on the other hand, the rapidly developing eastern region needs the import and supplement of various resources and energy.

This situation of energy distribution has caused rising production costs in the southeastern region dominated by an export-oriented economy. And yet the energy-rich western region is leading a poor life. Construction of the two major projects: west-to-east power transmission and west-to-east gas transfer will rationalize China's energy distribution, and will greatly improve the overall economic benefits of the State economy.³⁴

Addressing the Western Forum in Chengdu on 22 October 2000, Sun Yonfu, China's Vice Minister of Railways, said that China would build a railway to Lhasa "to promote the economic development of the Tibet Autonomous Region and to strengthen national defense".³⁵ Although Lhasa City is already connected with the rest of China by four major highways, it is only the Siling-Tibet (Ch: Qinghai-Tibet) Highway that operates year-round, carrying 80 percent of the cargo and passengers to the "Tibet Autonomous Region". *Beijing Review* (5/14/2001) reported that the Gormo-Nagchu-Lhasa Railway will "help improve transport conditions and the investment environment" on the Tibetan plateau, and will "accelerate Tibetan resource development and economic growth".

The amount earmarked for this project represents a substantial portion of the planned 100 billion yuan investment in railway construction in the western region during the plan period. It is widely believed that mere economic considerations can hardly justify the enormous cost and technical difficulties of the project.³⁶ Political and military considerations are suspected to be the key factor in China's determination to construct the rail link to Lhasa.

3) Implementation Strategy

The project will be executed in two phases. The first phase will involve upgrading the existing 845-km Siling-Gormo Railway Line. The work on this was started in June 2000 and is expected to be completed by October 2001.

The second phase is the actual undertaking of laying railway tracks from Gormo to Lhasa City. This phase was flagged off in Gormo on 29 June 2001. It is not yet apparent when the actual work will commence. According to some reports, the construction of test sections of 14 km and another 150 km, which form the easier section of the project, was to start in July 2001.³⁷ The rest of the project will most likely begin in April 2002. In an interview with the *South China Morning Post's*, July 23, 200, correspondent, Josephine Ma, the vice-chairman of the Tibet Autonomous Region, Qunpei (Tib: Chonphel) said: "If the study can be completed early, perhaps we can start construction this year. But if it takes more time, the construction will probably begin early next year".³⁸

The Gormo-Nagchu-Lhasa Railway will have two main junctions (Gormo and Lhasa City), eight stations and 20 other exit points. Three stations (Lungdho, Wutaolen, Thogthen River) will be in "Yushu/Kyegudo Tibetan Autonomous Prefecture", two (Amdo Dzong and Nagchu) in Nagchu Prefecture and three (Damshung, Yangpachen and Zechu) in the Lhasa District.

Of the 20 exit points, 15 will be in Amdo (Ch: Qinghai) and the remainders in the "Tibet Autonomous Region". The 15 exit points in Amdo (Ch: Qinghai) are Khunu Bridge, Donglung, Wonkhu, Nagri Chunak-kha, Chumar, Mugsei Soglam, Luma Chu, Artao-lung, U-li, Thongthen River, Dichu-toe, Toema, Dhangla, and U-nyok Chu. The five exit points in the "TAR" are Thoe-gyu La, Lenthung River, Gacha, Yuru, Sulu, U-ma Thang, and Dhachu-go.

The line will cross over the five major passes of Kunlun, Hoh-Xil, Fung-ho, Dhang-la and Nyenchen Thang-la. The highest pass (La-nyag) is 5,072 meters above sea level. It will also pass through eight well-known basins or flat lands, such as Shingta-Then, Chumar, Thogthen, Chutsen, Nagchu, Damshung, Yangpachen, and Lhasa.

According to *Economic Daily* (Jan. 22, 2001), the project involves the permanent employment of 67,000 Chinese technicians and labourers and another 16,000 labourers seasonally employed locally.

4) Problems in implementing the project

The Chinese authorities have identified geological impact, permafrost, low temperatures and oxygen shortage at higher altitudes as the major problems. Based on current scientific studies, it is believed that

the Tibetan Plateau is drying up, resulting in degradation of permafrost along the eastern part of the landmass. This is a significant problem given the fact that 550 km of the railway line will pass through permafrost regions, of which 190 km is “not stable” and 100 km is “not at all stable”. Landslides, mudflows, karst rocks, earthquakes and thunderstorms are other impediments. While reporting on the problems, the *South China Morning Post*, quotes *Knight Ridder*, July 23, 2001, that:

The railway, part of it started last month and scheduled for completion in 2007, may be the most difficult attempted. High altitudes, steep grades, plummeting temperatures, howling winds and soils that can rise or sink more than a metre depending on the season all present enormous technical challenges.

Beyond those engineering issues lies environmental concerns for the region’s fragile ecosystem, which could be badly damaged if promised protective measures fail...

...The high altitudes, exceeding 4,545 metres above sea level at one point, will require special train engines that can function with little oxygen as well as pressurised cars to keep passengers from suffering altitude sickness.

Some stretches would include the steepest grades climbed by a train, Mr. Zhang [Zhang Xiuli is the project’s senior engineer] said, and others would pass over ground that rises in winter and sinks in summer. Fierce winds buffet some spots more than 170 days a year, while other places are vulnerable to landslides and earthquakes.³⁹

The above problems were also highlighted in the information brochure of a seminar on the “Qinghai-Tibet Railway Project”, organised in Beijing in May 2001 by Construction Industry Manufacturers Association (CIMA) from Milwaukee, USA, and China’s Ministry of Railways. The brochure indicated that the Chinese government was still earnestly looking for technology, including earth-moving machinery, foundation construction machinery, tunnel boring and drilling machinery, and specialist equipment for use at high altitude and in low temperatures.⁴⁰

Railway to Lhasa City and Impacts on Tibetans

China’s policy-decision of bringing railway to Lhasa City and then to the southern corridor of Tibet will have far-reaching effects. The project will lead to extensive damage on the fragile ecosystem of the Tibetan plateau, damaging wildlife, contaminating waterbodies particularly that of Dri-chu (Yangtse), Gyamo-Ngulchu (Salween), and Dzachu (Mekong) rivers, and inducing deflation and soil erosions as a result of escalating resource exploitation. The project will also encourage massive influx of Chinese settlers, which will lead to the marginalisation of the Tibetans, stigmatising them on the basis of race and creed, and ultimately eroding the foundations of Tibetan culture and identity. Apart from these, the project will escalate military build-up on the Tibetan plateau which will gradually invite arms-race in the South and South-East Asia.

1) Environmental Impact

The Chinese authorities and experts have assured that appropriate measures would be taken to prevent ecological damage to the areas along the Gormo-Nagchu-Lhasa Railway Line. China’s Number One Survey and Design Institute and State Environmental Protection Administration have assured protection

of soil, vegetation, animal and plant resources, and water resources in the region.⁴¹ However, a number of independent experts have raised serious concerns over the ecological impact of the project. The *Southern Weekend* newspaper, published from Guangdong, quoted the concerns of experts and stated that, “given the harsh climate, the vegetation cover in this region has come out extremely slowly and if the vegetation is damaged [by engineering works], it will be very difficult to recover”.⁴²

Environmentalists have expressed concerns over the impact on the existing wildlife on the plateau, particularly in Hoh Xil Nature Reserve in Amdo (Ch: Qinghai) and Chang Thang Nature Reserve in the “TAR”. These reserves are the habitats of many endemic wildlife species, including Tibetan antelope and wild yak. Ran Li, chief engineer of the Number One Survey and Design Institute, assured on 15 February 2001 that, “more bridges and passages for animals will be built” in the nature reserve zones to protect animal and plant resources.⁴³ But, many experts believe that the railway line is certain to affect the migratory pattern of wildlife in the reserves, no matter what arrangements are made.

Furthermore, the population pressure that the railway will bring to the areas will increase illegal poaching in the reserves and pollution of the source of the Yangtze, Yellow and Mekong Rivers.

One of the most serious concerns is the acceleration of natural resource exploitation and the resulting large-scale environmental destruction on the plateau. Over the past four decades, the arrival of highways and railways has completely changed the environment of northern and western parts of Amdo (Ch: Qinghai). The Tibetan autonomous prefectures of Tsonub⁴⁴ and Tsojang cover an area of 377,787 sq km, which is more than half of Qinghai. The once barren and pastoral land of these prefectures has now become a busy site for mineral exploitation. Prisoners, forced immigrants and the PLA have all contributed to the exploration and extraction of mineral resources in the region. In 1992, Tsonub Tibetan Autonomous Prefecture was hailed as “the only ethnic minorities-inhabited prefecture in the country that turns over revenues to the higher authorities”.⁴⁵

The Tsaidam Basin in Tsonub Tibetan Autonomous Prefecture is “a treasure house of mineral resources” to the Chinese government. The basin holds 42 billion tonnes of oil reserves, 1,500 billion cubic metres of natural gas, rich deposits of potassium chloride and several other resources. As early as 1956, the authorities built settlements in Da Tsaidam and Mengya with road links to Tsakha (Ch: Chaka).⁴⁶ Thousands of forced immigrants from eastern China and prisoners were moved there to work on road construction, mines and production facilities. To support the burgeoning Chinese population, the traditional grasslands of the Tibetan and ethnic Mongolian nomads of Amdo were turned into croplands.

This story will most certainly be repeated in the “TAR” in the coming years. The impact of the railway on the “TAR” is best described by the authors of *Tibet Outside TAR* as early as 1997. They then wrote:

When and if the tracks are extended beyond the Tanggula into the TAR, it is reasonable to expect it will be the most significant event for the TAR since the arrival of the PLA there in 1950s. The effects of Chinese-style development and population influx will be pervasive and can be expected to mirror those seen today in formerly Tibetan and Mongolian zones such as Tsolho (Ch: Hainan) and Inner Mongolia.

Currently, 70 percent of China’s energy is consumed by its eastern and central regions, whereas some 90 percent of hydropower resources and 80 percent of coal reserves lie in western and northern China respectively.⁴⁷ In the year 2000, the construction of the Sebei-Siling-Lanzhou gas pipeline was selected as one of the nation’s ten most important projects and the work was commenced in April 2000. In the

“TAR”, emphasis is being placed on the construction of water conservancy projects. The Tenth Five-Year Plan proposes to see the construction of a conveyance system in the Menla, Phenbo and Yarlung irrigation areas. Similarly, it wants to see the early commencement of the construction of nine “backbone projects”, including the Pangduo irrigation hub.⁴⁸

Chinese geologists have recently found oil and natural gas reserves in the “TAR” in Lhunpo-la Basin and Chang Thang Basin. As of now, these reserves are not drilled commercially, but the prospect of commercial drilling will be greatly enhanced once the railway line is constructed. The advent of rail links will make natural resource exploitation more attractive and profitable, as the cost of transportation to China will be drastically reduced. Thus, the overall impact of the railway on the environment of the plateau will be far-reaching.

2) Social and Economic Impacts

Chinese State planners and media have issued assurance that the railway project will “boost” the region’s economy by “linking the plateau’s economy with inland economies” and “making accessible its industries and products to various part of China and even the world”.⁴⁹ But, Tibetans in Tibet express strong misgivings about this project. In classic colonial mode, the Chinese government regards the resource-rich western region—including Tibet—merely as a provider of raw materials and energy for the industries in eastern and central China. In return, the western region is expected to receive “skilled, managerial and technical personnel” from the Chinese provinces to create a vibrant market for manufacturing or consumer goods from the east.⁵⁰

The exploitation of natural resources in Tibet will have a minimal effect in boosting the local economy. This is because all the primary industries are owned by the State and the revenues of these industries go straight to the Chinese central government. Article Nine of the Chinese Constitution states that, “All mineral resources, water, forests, mountains, grasslands, unreclaimed land, beaches and other natural resources are owned by the state, that is, by the whole people.” This is precisely the reason why the regional government in Tibet is so dependent on “subsidies and financial aid” from the Chinese central government.

Not only will the railway will make it cheaper, easier and quicker to transport raw materials—such as medicinal plants, forestry and other products—from the Tibetan plateau to China, it will also have a similar advantage in bringing Chinese migrants and consumer goods to Tibet. This will only widen the existing economic gap between China and Tibet. According to Chinese scholars:

The current distribution of labour and industrial structure are irrational and at a low level. When we compare the distribution of labour between the east and west, this shows that there is a division between raw material production and preliminary processing in the west and production of processed raw materials and goods with high added value in the east. The west suffers a dual profit loss through this kind of distribution, by the export of raw materials and by the import of processed products, weakening the western regions’ capacity to accumulate their own funds.⁵¹

A similar concern was raised by other Chinese scholars. A Beijing-based researcher, Zhang Keyun, stated that the biased price structure has created “dual profit-loss” (losing profit due to cheap exports and losing profit due to having to pay comparatively high prices for processed goods) for the western region,

particularly Tibet and Xinjiang. This lopsided system is the main cause of the existing income disparity between China's east and west.

Undoubtedly, the construction of the railway line will provide temporary and token job opportunities to a limited number of Tibetans. As Chinese planners have predicted, Tibetans living in the areas along the railway line will get temporary, menial, labouring jobs to build decks of rocks in the unstable areas on which the railway line will be laid. But the major proportion of employment opportunities will go to engineers and other semi-skilled labourers from China. Already, a large contingent of Chinese contractors and several thousand labourers are camped in Gormo to undertake the project. The employment of Tibetans will be sidelined with the excuse that they lack "proper skills and technical know-how".

The Chinese authorities and media point out that the railway will promote tourism to the "TAR", bringing in 5.64 million tourists over the next five years.⁵² If the past experience in the "TAR" is any indication, it is doubtful whether the local Tibetans will derive any benefit from the expected tourism boom in the region. Over the past five years, the "TAR" has received over two million tourists from China and overseas countries, earning 1.96 billion yuan (US\$236 million). In the same period, many Tibetan tour guides have lost their jobs to their Chinese counterparts, due to the Chinese government's policy of looking upon Tibetan guides as harbouring sympathy towards the "Dalai Clique's separatist activities".

One of the most serious impacts of the railway—which is scheduled to run eight trains a day in each direction once it is completed—will be the influx of Chinese immigrants, particularly from Sichuan Province. For instance, Qinghai's population increased from around one and half million in 1949 to more than five million today due mainly to improved transport facilities, including the advent of the railway. Gormo—which is now the second largest town in Qinghai—was once a vast pastoral land inhabited by a few hundred Tibetan nomads. Today it has a population of 200,000 of which only 3,600 are Tibetans (1.8 per cent). China's Tenth Five-Year Plan envisages further expansion and urbanisation of the town.

The "TAR" authorities already predict expansion of Lhasa City from the current 53 sq km to 272 sq km in the next 15 years. This indicates Beijing's plan to relocate a large number of forced immigrants from China. China currently has 150 million surplus rural labourers, of which 11.34 million are in Sichuan Province, neighbouring Tibet.⁵³ There is every likelihood that the Tibetan plateau will be chosen as a favoured spot to accommodate a section of 3 million ⁵⁴ farmers who will be forced to become workers in the coming five years.

In July 2000, Beijing announced a policy to make it easier for Chinese immigrants to exploit economic opportunities in Tibet and other minority areas in the west. *Xinhua* (14 July 2000) reported that the Ministry of Public Security issued a notice stipulating that all "investors and professionals" working in western China can be registered where they work, and that if they wish to return to where they came from, they can have their new residence registration go with them. *Xinhua* emphasised that: "The new policy is aimed at proving a better environment for the country to carry out Western Development strategy and encouraging a reasonable and orderly population immigration [sic]".

The new rail-link to Kashgar, Xinjiang, is a striking example of who will benefit from the railway project. "The terminal itself speaks volumes for Han intentions in the area. Designed for a majority Chinese clientele; Chinese kiosks; Chinese signs and Chinese staff predominate. One Uighur restaurant

hidden in a far corner of a 40-strong Chinese café-complex, exists as a sop to the eating preferences of Uighurs who refuse to eat with the Chinese. But in fact Uighur faces are a rare commodity on the trains. Most cannot afford the luxury of train travel and prefer to haggle on the bus. The train, hot off the Chinese press, with Chinese signs, Chinese staff, 24-hour piped Chinese music, Chinese announcements and Chinese food, is not to the likes of the average Uighur citizen. ‘These trains are for Chinese and foreign tourists,’ said Ibrahim, an Uighur tour guide. ‘The Chinese are the rich ones round here. Our people like to negotiate a fare but there’s no negotiation on the train. The only Uighurs you find at the station are touts buying up tickets to re-sell, but even that’s being knocked on the head by the Chinese authorities.’⁵⁵

In all probability, this scenario will be reenacted in Tibet. Tibetans today face the prospect of losing control over their lands and becoming a powerless “minority” and “cultural relics” for Chinese and foreign tourists. There are already reports that local Tibetans farmers would be displaced from the site of the railway terminus in Ne’u township, near Lhasa City. Lhasa and other towns in Tibet will become warehouses and transit points to dump cheap Chinese consumer goods on the Nepalese and Indian markets.

The ultimate aim of China’s railway line to Lhasa and other development projects in the western regions is summed up in the following official statement:

..In just a few years to come, Wuhan will use electricity from Sichuan, Shanghai will burn natural gas from Xinjiang, people from the eastern regions will arrive at Lhasa or the “sunshine city” by train, and people of north China will drink sweet water from the Yangtze River.⁵⁶

3) Regional Security Implications

In 1959, when China completed the occupation of Tibet, an Indian statesman said that the Himalayas had now ceased to exist. For the first time in history, India had to fight a bloody war against China in 1962; the trauma of that war still lingers in the minds of Indians. Analysts suggest that the 1962-attack on India was only the opening shot in a confrontation, whose later stages have to wait China’s surer grasp on Tibet.⁵⁷

As stated earlier, in the 1970s China used the Tibetan plateau for the development of its first nuclear bombs. Today, China’s military arsenal on the plateau is believed to include 17 top secret radar stations, eight missile bases with at least eight intercontinental ballistic missiles, 70 medium-range and 20 intermediate-range missiles, and 25 airfields and airstrips. Some of the missiles stored on the Tibetan plateau have a range of nearly 13,000 km, which could reach many parts of Asia.

However, a lack of reliable transport facilities has greatly restricted China’s military manoeuvrability on the plateau until now. The advent of the railway will allow China to surmount this obstacle. An Indian scholar, Dr. Subhash Kapila, said that the arrival of the railway would, at least, double China’s military deployment in Tibet and the Indo-Tibetan border region, and Beijing would be able to effectively sustain it logistically. He added that the new rail link and offshoots from the proposed oil pipeline could increase the deployment of China’s airforce and missiles. ⁵⁸

The Chinese media indicate that the PLA base in Gormo may be expanded manifold once it is connected to Lhasa by the rail. It will also facilitate the expansion of PLA bases in Kongpo and other parts

of south-western Tibet. This will become a real possibility when the second phase of extending the rail line from Lhasa to Dali in Yunnan is completed.

This, along with China's naval base development on Burmese territory, will pose serious threats to the Indian sub-continent and Southeast Asia. George Ginsburg and Machiel Mathos said, "He who holds the Himalayan piedmont threatens the Indian subcontinent; and he who threatens the Indian subcontinent may well have all of Southeast Asia within its reach, and all of Asia."⁵⁹

Conclusion

In the 1950s, the Chinese government extended its rail network to the Tibetan plateau from its northern corridor to reinforce China's national defence and colonise Tibet. Four decades later, Beijing is in the process of bringing the railway to the heart of Tibet to consolidate its military presence in the southern corridor of the plateau and increase the efficiency of its natural resource exploitation. This project will exact a heavy price from Tibet and its southern neighbours. As far as Tibetans are concerned, the Gormo-Nagchu-Lhasa Railway and China's Western Development Program will only serve to implement China's population policy and complete the Sinicisation of their country. For Tibet's southern neighbours, these projects will bring even more serious military threat right to their doorstep and ultimately escalate the arms race on the Asian continent.

Notes:

¹ Lee, Robert, *Tools of empire or means of national salvation? The railway in the imagination of Western Empire builders and their enemies in Asia.* www.york.ac.uk/inst/irs/irshome/papers/robert1.htm 21 May 2001

² Tibet here refers to historical Tibet, which is now divided by the Chinese government into a number of administrative divisions: 1) Qinghai Province, 2) "Tibet Autonomous Region", 3) Tianzu Tibetan Autonomous County and Gannan Tibetan Autonomous Prefecture in Gansu Province, 4) Aba Tibetan Autonomous Prefecture, Ganze Tibetan Autonomous Prefecture and Mili Tibetan Autonomous County in Sichuan Province, 5) Deqin Tibetan Autonomous Prefecture in Yunnan Province.

³ Qinghai is entirely a Tibetan region, consisting of Amdo and Kham areas. The current administrative division of Qinghai Province includes: 1) Xining District, 2) Haidong, 3) Haibei Tibetan Autonomous Prefecture, 4) Haixi Tibetan Autonomous Prefecture, 5) Hainan Tibetan Autonomous Prefecture, 6) Guoluo Tibetan Autonomous Prefecture, 7) Huangnan Tibetan Autonomous Prefecture, 8) Yushu Tibetan Autonomous Prefecture

⁴ *People's Daily*, 12 November 2000

⁵ Alan P. Liu, *Communication and National Integration in Communist China*, cited by Leung Chi-Keung (University of Hong Kong), *China: Railway Patterns and National Goals*, The University of Chicago, Department of Geography, Research Paper No. 95, 1980, p. 155

⁶ Leung Chi-Keung (University of Hong Kong), *China: Railway Patterns and National Goals*, The University of Chicago, Department of Geography, Research Paper No. 95, 1980, p. 155

- ⁷ The Chinese have now renamed the Tibetan plateau as Qinghai-Tibet Plateau
- ⁸ Chi-Keung, Leung, 1980 *China: Railway Patterns and National Goals*. Research Paper no. 195, Department of Geography, The University of Chicago
- ⁹ Fang Weizhong, *Economic Chronology*, p 379 in Deba R Mohanty's "The Chinese Security Dilemma in the 1950s and 1960s: Story of the Third Front." www.idsa-india.org/an-jan-4html 22 May 2001.
- ¹⁰ Tibet Information Network, *China's Great Leap West*, London, November 2000, p. 29
- ¹¹ Jasper Becker, *Hungry Ghosts: China's Secret Famine*, John Murray, London, 1996, p. 162
- ¹² *China's Great Leap West*, p. 29
- ¹³ *ibid*, p. 29
- ¹⁴ Gormo is spelt as Golmud in Chinese documents
- ¹⁵ Tsojang is called Haibei by the Chinese government
- ¹⁶ John Lewis and Xue Litai, *China Builds the Bomb*, Stanford University Press, 1988, p. 54. Under the Ninth Bureau came the Qinghai-based northwest Nuclear Weapon Research and Design Academy (Ninth Academy), the Beijing Nuclear Weapons Research Institute, and the Nuclear Component Manufacturing Plant in Jiuquan Prefecture. (Quoted in *Nuclear Tibet: a report published by the International Campaign for Tibet in 1993*, p.6)
- ¹⁷ *Hungry Ghosts*, p. 161
- ¹⁸ Qinghai Investment Promotion Network. www.qhei.gov.cn/qhfdi/eqhsg.htm 22 May 2001
- ¹⁹ Terlenkha is spelt as Delingha in Chinese documents
- ²⁰ Steven Marshall and Susan Cooke, *Tibet Outside TAR: Control, Exploitation and Assimilation*, Alliance for Research on Tibet, 1997, p. 1845
- ²¹ Nyintri is spelt as Linzhi in Chinese documents
- ²² *Beijing Review*, 14 May 2001, "Train Will Run on the Roof of the World", Wang Wen
- ²³ Kanlho is known as Ganan in Chinese documents
- ²⁴ Golog is spelt as Guoluo in Chinese documents
- ²⁵ Kardze is spelt as Ganze in Chinese documents
- ²⁶ Dechen is spelt as Deqin in Chinese documents
- ²⁷ Ngapa is spelt as Aba in Chinese documents
- ²⁸ *Beijing Review*, "Train will run on the roof of the world" Wang Wen www.bjreview.com.cn/bjreview/EN/China/China200115a.html
- ²⁹ *People's Daily* (Internet Edition), 12 November 2000, "Prospecting and Feasibility Study Up for Building Railway to Tibet"
- ³⁰ Western China encompasses 5.4 million Sq km and 300 million people across six provinces (Gansu, Qinghai, Shanxi, Sichuan and Yunnan), three autonomous regions (Ningxia, Tibet and Xinjiang) and one city (Chongqing). Of the 5.4 million sq km, 2.5 million sq km constitute traditional Tibetan areas of U-Tsang (now known as "Tibet Autonomous Region"), Kham (now largely incorporated into China's Sichuan and Yunnan Provinces), and Amdo (now renamed Qinghai Province).

31 *China's Great Leap West*, London, p. 43; *Xinhua* interview with China's Railway Minister Fu Zhihuan on 16 February 2000

32 *China's Great Leap West*, p. 44

33 Consulate General of the People's Republic of China in Houston, "Four major projects will redraw China's economic division map", March 18, 2001. www.chinahouston.org/news/2001317205006.html

34 *ibid*

35 *South China Morning Post*, 23 October 2000

36 *China's Great Leap West*, p. 44

37 The United States based Construction Industry Manufacturers Association (CIMA) and China's Ministry of Railway in their Beijing Seminar (16-18 May 2001) information www.cimamet.com/resource_centers/international/technical_seminars/railway_summary.asp 28 May 2001

38 *South China Morning Post*, May 24, 2001, "Tibet rail plan faces problems".

39 *South China Morning Post*, Monday, July 23, 2001, "Tibet railway to fast-track political and economic goals".

40 For more details, refer www.cimamet.com/public/resource_centers/international/technical_seminars/railway-summary.asp, 28 May 2001

41 *People's Daily*, 21 May 2001, "Qinghai-Tibet Railway to become a plateau ecological railway"

42 Cited by CNN.com Senior China Analyst Willy Wo-Lap Lam in his article, "China's big projects raise hackles", CNN-Asia, 14 March 2001

43 Embassy of the People's Republic of China in the United States, "Constructing Qinghai-Tibet Won't Damage Eco-System", 23 March 2001

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45 *Xinhua*, Beijing, 2 November 1992; FBIS-CHI-92-212, 2/11/92 cited by the Alliance for Research in Tibet (ART) in *Tibet Outside TAR*, p. 1861

46 June Teufel, Dreyer, *Ch'inghai*, p. 19 cited by the Alliance for Research in Tibet (ART) in *Tibet Outside TAR*, p. 1861

47 *International Water Power and Dam Construction*, May 1997, p. 6, *Business News*, "West China's electricity set to be transmitted to the east", cited in *China's Great Leap West*, p. 47

48 *China's Great Leap West*, p. 47

49 Embassy of the People's Republic of China in Canada, "Qinghai-Tibet Railway Blueprinting Tibet's Economy", 13 March 2001

50 *Beijing Review*, 16-22 May 1988, p. 17

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52 *People's Daily*, 18 April 2001, "Tibet expects 5.64 million tourists in next five years" and Embassy of the People's Republic of China in Canada, "Qinghai-Tibet Railway Blueprinting Tibet-Economy", 13 March 2001

53 *Xinhua*, 11 June 2001, “More Farmers in Sichuan to Become Workers”

54 *ibid*

55 Ingram, Ruth. A New ‘Shining Kashgar’: Field Reports. *The Analyst* (Central Asia and Caucasus). www.cacianalyst.org/Hune_6_2001/June_6_2001_Shining_Kashgar.htm June 6, 2001

56 Consulate General of the People’s Republic of China in Houston, “Four major projects will redraw China’s economic division map”, 18 March 2001
www.chinahouston.org/news/2001317205006.html

57 *Tibetan Review*, Vol. X. Nos. 9 & 10, September and October 1975, “Chinese Military Base in Tibet” by A.H. Stanton Candlin, p. 21

58 www.saag.org/papers3/paper210.htm 21 May 2001

59 George Ginsburg and Machiel Mathos. *Communist China and Tibet* The Hague: Martinus Nijhoff 1964

Annexure

The Tibetan Government-in-Exile's Statement on Gormo-Lhasa Railway Line

The Tibetan Government-in-Exile's Statement on Gormo-Lhasa Railway Line

The Tibetan Government-in-Exile (TGIE) is extremely concerned about China's recent decision to go ahead with the Gormo-Lhasa railway line, which is the one of the four proposed railway routes (Chengdu-Kongpo-Lhasa, Dali-Kongpo-Lhasa, Lanzhou-Nagchu-Lhasa) to link Tibet with China. The project long in the offing was abandoned in 1987 because of an unfavourable cost benefit analysis. This time China's National People's Congress and the State Council hastily approved the project by listing it in the central budget for the 10th Five-year Plan, which means the project would get direct state funds. The project, the largest of its kind, is supposed to enhance "the national defence and domestic stability" and help mainstream the traditional Tibetan economy. It will be officially launched in June 2001. The 'Tibet Autonomous Region' is one of the western Tibetan regions not connected to China by railways and is perhaps the chief reason why China has not been able to sinicise Tibet completely.

The Gormo-Lhasa railway route, an extension programme to the existing Siling-Gormo railway line, has a stipulated distance of 1,118 kms long covering four Tibetan prefectures viz., Gormo, Kyigudo, Nagchu and Lhasa. The track, which will negotiate mountains over 5000 m high, rarefied atmosphere, and unique highland topography, is regarded as the highest track on earth. The construction dares one of the most difficult plateau terrains that has a large coverage of permafrost, swamps and unstable high peaked mountains. Thirty different stations and junctions are planned to assist the 'high speed' railway track. During the period of construction, about 67,000 skilled labourers from China and 6,000 local labour forces will be drawn from the neighbouring Chinese provinces to the construction sites. Global Positioning System (GPS) and the best dynamic mountain technology (engineering and mechanical) in the world will be tested to remove the physical constraints. The project claims to benefit the region by bringing convenient livestock trading, expediting the natural resource exploitation and boosting cultural and 'eco-tourism' by threefold within a decade. The cost of the project by 1995 prices is estimated at 19.4 billion Yuan (2.34 billion US\$) and is supposed to be completed by 2007.

The preliminary assessment with regard to impacts on Tibet and Tibetans shows that this railway project will have far-reaching negative immediate and long-term political, social, economic and environmental consequences.

Firstly, a gigantic investment of this kind shows little economic viability with relation to its total direct and indirect costs. The indirect costs such as exemption from taxes, local labour and resource supply, subsidisation on agricultural and pastoral lands for the local administration would put incredibly high pressure on the already scarce local resources of the regional administrations and its inhabitants i.e. 'TAR' and Tibetan inhabited areas.

Secondly, China's State documents prove that the project will attract a massive number of labourers and immigrants, who will be given special provision including resident's permit rights during and after the project's completion, to the most environmentally fragile regions of the west, which further marginalises the Tibetan population physically and socially.

Thirdly, the railway line will have known environmental implications such as erosion, silting, pollution, disturbances to migration paths of wildlife and untold of ecosystem imbalances in the 'Nature Reserves' it passes through due to massive drilling and shafting. Though Chinese State Environmental Protection Administration (SEPA) says measures will be taken to cause minimum ecosystem damage, a proper environmental assessment has not been done. The larger economic impacts and the ultimate geo-political implications to the south and southwest Asia are still being researched and assessed by the Department of Information and International Relations (DIIR).

In brief, this railway project is not an ordinary infrastructure building project. It has far-reaching domestic and international implications and it is indeed a disaster for the Tibetan people, who are struggling against cultural and political annihilation.

The TGIE's position on development and investment inside Tibet is clear: it supports programmes, which promote 'sustainable development' and allow the effective participation of the local populace in the developmental processes. An elaborate investment portfolio and guideline to this effect are specially published to ensure sustainable development in the Tibetan Plateau region. One of the basic principles of the Guidelines is "to enhance the capabilities of Tibetans to meet the needs of the present generation without compromising the needs of the future". The human resources development and health are the key sectors identified for investment and development. (*Guidelines for International Development Projects and Sustainable Investment in Tibet*; [http: www.tibet.net/eng/diir/enviro/devguide](http://www.tibet.net/eng/diir/enviro/devguide))

We, therefore, call for an immediate action by Tibet supporters throughout the world for a campaign against Gormo-Lhasa railway line and the three other proposed lines, and appeal to your respective Government to put pressure on Beijing to stop this railway project. For further risk assessment research, DIIR appreciates your contribution of any related materials on the project.

Kalon T.C. Tethong (Mr.)

MINISTER

Department of Information and International Relations

Central Tibetan Administration

May 15, 2001

NEW RAILROAD WILL DEVASTATE TIBET

Will impact the security of Tibet's neighbours

Press Release

The Tibetan Government-in-Exile, Dharamsala, 15 May 2001 – “The proposed Lhasa-Gormo railway line will mean that more Chinese settlers will swamp Tibet and Tibet’s un-tapped natural resources will find their way to China,” said Kalon T.C. Tethong of the Department of Information and International Relations of the Central Tibetan Administration based in north India.

“Tibet itself will go the way of Inner Mongolia and Manchuria, totally swamped by Chinese settlers and completely sinicised,” Tethong said.

“This is because the decision to construct the line connecting central Tibet with China is a political decision and has a strong political and military objective of cementing Chinese rule over the Tibetan plateau,” Tethong said. “The decision to go ahead with the railway line, despite experts’ objections about the un-sustainability of the project, will have a major negative impact not only on Tibet but also on Tibet’s neighbours as this will enormously increase Chinese ability to move troops and supplies rapidly across the vast Tibetan plateau,” Tethong said.

The decision to construct the Lhasa-Gormo line was made in March this year by both the National People’s Congress and the State Council of the People’s Republic of China. Plans to connect Tibet with China by a railroad were discussed as far back as in the 1950’s. These plans were shelved because China’s technological capabilities then did not match with the extremely harsh topographical challenges like large swathes of permafrost, swamps and high peaks that are the main features of this part of Tibet. Even now experts are uncertain whether China has the technological know-how and capability to overcome these enduring natural obstacles.

The Lhasa-Gormo line is 1,118 kilometres long and a total of 30 bridges need to be built and tunnels dug. The total length of bridges and tunnels is more than 37.5 kilometres and constitute about 2.8 % of the length of the railway line. China announced that it would start constructing the line sometime in the middle of this year and the projected total cost of the railway construction based on 1995 price index will amount to a whopping 2.34 billion US\$ (19.4 billion yuan). This is the first railway line. But there are plans to construct three other railway lines connecting Tibet with China. One is the Chengdu-Kongpo-Lhasa route, the other Dali-Kongpo-Lhasa and the third, Lanzhou-Nagchu-Lhasa.

These projects, the largest of its kind, are directed toward enhancing “national defence and domestic stability” and to further integrate the Tibetan economy with that of mainstream China.

Experts are debating the cost analysis of these mammoth projects and whether the potential financial benefits of these projects will cover the huge financial outlay in completing the four railway lines.

For the construction of the Lhasa-Gormo line, the Chinese authorities will employ about 67,000 workers from outside of Tibet and about 16,000 local workforce. Experts feel that the indirect costs such as exemption from taxes and subsidisation on agricultural and pastoral land would put incredibly high pressure on scarce local resources. Apart from this, there are deep concerns about the effect the railway lines will have on Tibet’s fragile ecosystem and their impact on exacerbating erosion, silting, and pollution.

“We are not against development per se,” Tethong said. “But we strongly protest development projects over which the Tibetan people have no say and which contribute to undermining their ability to maintain their distinct cultural identity.”

FAST TRACKING TIBET

By Gabriel Lafitte

in Harvard Asia Pacific Review Summer 2001 edition

PILGRIMS TO THE HOLY CITY of Lhasa are expressing delight that their journey will be easier, once China fulfils its pledge to build a railroad. So says the People's Daily. China's media also quote Tibetans as saying "there will be more alms giving to temples." A start on this multi billion dollar project is two years away, and completion at best a decade away; yet Tibetans are reportedly already looking forward to it. Tibetans are known for their hopeful disposition. An old Tibetan saying is that the downfall of Tibetans is their hopefulness; the downfall of the Chinese is their fearfulness.

Maybe the comfort of Buddhist pilgrims isn't why China is willing to spend billions. This is by far China's biggest investment in Tibet, and Beijing's ability to fund grand edifices from central revenues has recently dwindled. The origin of this belated enthusiasm for the road of steel is elsewhere.

Rational economic reasons in part explain why Lhasa merits a rail depot. China's official media say the railroad will "play an important role in enhancing exchanges between ethnic groups, the development of resources and economic development in western China and in consolidating national security." Leading Tibetan cadres now speak of Tibet's readiness for "a great leap forward," an unfortunate phrase redolent of the Party's mass campaign of 1959 and 1960 which resulted in mass starvation throughout Tibet and China. Tibetans who survived remember vividly having to eat the roots of pasture herbs to stay alive.

Lhasa is the last provincial capital to be connected to China's rail network, a network which in the early twentieth century did as much nation building as it did in the American west. America's westward thrust in the nineteenth century is explicitly China's model for its current campaign to exploit the resources of its west, and the railroad is part of that grand plan.

China's ancient art of extending territory is based on establishing garrisons and enclaves of intensive agricultural settlement. In Manchuria and Inner Mongolia, China's peopling of the forests and steppes beyond the Great Wall with Chinese settlers, securing their safety from nomad attack, was greatly speeded by the gleaming track. The process accelerated dramatically once the railroad was available to bring settlers in, their produce out, and speed troop reinforcements to the frontier when steppe peoples dispossessed by the march of progress rebelled. Owen Lattimore told this story decades ago. It is a familiar story, around the world. What is remarkable is that it has taken until the 21st century to reach Tibet.

To be more precise, this railroad will project Chinese power deep into what China sees as outer Tibet, officially called the Tibet Autonomous Region. The inner half, adjacent to China's hinterland, already has a railroad, completed in 1984, primarily used to haul Tibetan oil in tanker wagons to Chinese refineries at Lanzhou. Over twenty million tons of oil have headed east, and soon there will be a 2600-mile gas pipeline, and a grid of power pylons to extract Tibet's hydropower. Inner Tibet has already been integrated into the Chinese economy. China no longer considers these areas as Tibet. They are part of the Chinese provinces of Qinghai, Gansu, Sichuan and Yunnan.

Yet the three million Tibetans half the total- who live in inner Tibet have little to show for the advent of modernity. Little wealth has trickled out of the Chinese urban compounds onto the pasture of the nomadic yak herders. Resource extraction enclaves situated along strategic railroads have brought capital, technology and Chinese settlements to areas endowed with minerals, while the vast Tibetan rangelands get little by way of basic human services such as health or education.

China's conceptualisation of an inner and an outer Tibet has a lineage older than the railroad. China similarly divided Mongolia, a division predicated on the centrality of the central kingdom. The inner barbarians were, to use a classic Chinese metaphor, to be slowly cooked, assimilating them to Chinese

ways, adopting Chinese characteristics. At the farthest edge of the concentric circles radiating from the imperial court in Beijing are the outer barbarians, the uncooked primitives who barely acknowledge China's superior civilisation, who remain obdurately raw. Outer Mongolia was far beyond the Wall, beyond China's effective grasp. By great good fortune it survived the many wars, hot and cold, of the twentieth century and emerged intact, independent Mongolia reborn.

Inner Mongolia by contrast was intensively and systematically settled by poor Chinese peasants displaced from ancestral lands by famine, upheavals and state power. The settlements and garrisons took the best land and impounded almost all available water. Mongolian nomads became a marginal minority. Today, three million poor, semiliterate Mongolian herders live on the fringes of a modern, urban Chinese industrial civilisation based on booming coal mines, power stations, steel mills and factories. Fifteen million Chinese immigrants in Inner Mongolia have transformed the rangeland into a mosaic of intensively irrigated plots. The environmental cost has been great. Soil exposed to the plow is blasted by Arctic gales that regularly dump millions of tons of fine Mongolian soil on Beijing. The railroad was integral to all stages of this nation building process of making the Mongolian frontier Chinese.

Now it is at last the turn of outer Tibet. But will a railroad, a nineteenth century technology, achieve in the twenty-first century what it did to Inner Mongolia and inner Tibet? What is the logic of China's decision to build it? Has it much to do with rationality, feasibility or cost effectiveness?

The railroad to Lhasa, unlike the gas pipes, hydro dams and power grids, is to be financed solely from Beijing's central revenue. The other major projects to deliver Tibet's patrimony to China make liberal use of foreign investment, IPOs on global capital markets, and concessional finance supplied by big lenders such as the Asian Development Bank and World Bank. None of these sources of capital would take the political risk of spearing a steel line across the Tibetan plateau all the way to Lhasa.

This project is driven directly from Beijing, and a lot of national pride is involved. Potent symbolism is invoked. According to People's Daily, the great railroad achievement of the Five-Year Plan just ended was the north-south Beijing to Kowloon line, likened to a vertical slash of the calligraphic brush. The line to Lhasa is to be the crowning glory of the Tenth Five-Year Plan, 2001 through 2005. It "will represent a mighty 'horizontal' stroke," the People's Daily said, and "these 'vertical' and 'horizontal' strokes that run through the whole of China will be formed into the largest 'Cross' character in the world's railway web." In reality the line to be built is much more north-south than a horizontal east-west. Crossed horizontal and vertical lines are akin to the character zhong, the syllable that means both centre and China, the central kingdom of Zhong guo. Add a few small strokes at the base of the cross and it means loyal and devoted. This railroad makes peripheral outer Tibet part of the centre, brings Tibet fully into China, and manifests Tibetan loyalty and devotion to Beijing.

So important is it to inscribe the mark of the cross onto the Tibetan landscape that, according to official media, a start has already been made on the southward extension, beyond the refineries of Golmud, toward the mountain passes and the high plateau. The first section, by closely following the existing highway, need not climb much above 3000 meters.

China says the railroad will bring development and prosperity to Tibet. Yet Tibetans living in absolute poverty, lacking any access to markets, will gain nothing, because the route chosen goes through the least populated, highest, coldest and most arid part of Tibet. Other routes mapped by Chinese engineers and boosted by local Party bosses, heading west from Sichuan or Yunnan, would have given Tibetan grain growers and ranchers access to China's urban markets.

It is now fifty years since modern China began a determined attempt to swallow Tibet. Never before had China tried to control the daily lives and land use of the Tibetans. The great communist experiment quickly imposed, in the name of science as well as revolution, a demand that the land be made to yield more, and support a bigger population. Wheat was compulsorily sown in place of the traditional Tibetan mountain barley. The result was something unknown before in Tibet: famine. Amartya Sen's Nobel Prize

was in part for his observation that when local peoples have no democratic opportunity to voice their protests at misguided government policies, famines are worse. The Tibetans had no say.

Despite China's failure with wheat, the central planners in distant Beijing persistently sought ways to increase Tibet's population and production, in the hope of absorbing some of China's unemployed. But to this day Tibet remains effectively outside the Chinese economy, with little integration other than the mines, hydro dams, and oil wells. Tibetans continue to subsist, as fenced-in small ranchers rather than on the open range. They remain poor. China has invested little in increasing the incomes of Tibetan farmers and nomads, by processing their products into commodities useful to China. Even the commercial brewery in Lhasa relies on Chinese strains of barley, not any of the varieties bred by Tibetan farmers over many centuries. As a result, little leaves Tibet, which is why a railroad to Lhasa can never be commercially viable. The new Beijing-Kowloon line will carry in a week a whole year's traffic to Lhasa.

Much, however, arrives in Lhasa by truck, over bad roads, and in future will arrive by train. Almost everything manufactured, and needed to sustain Chinese settlers in a lifestyle they expect, must be trucked in. Urban Chinese in the new cities of Tibet are paid among the highest wages in China, and the transport cost of their material comforts is subsidised. This population explosion is more than the high, cold, thin soils of Tibet can sustain, and up to 100,000 tons of grain have been annually trucked in. Even cement is brought to Lhasa from Chinese cities. All these can be more efficiently railed instead of trucked.

Yet the tonnages, the density of traffic on the railroad to Lhasa, when compared to any other rail line planned or under construction in China, shows a negative rate of return. I attended a conference of Chinese scientists on the formation, evolution and sustainable development of the Tibetan Plateau, in the railhead city of Xining, on the edge of Tibet, in 1998, where proponents of the new railroad put their case. A western visitor asked how the cost benefit analysis stacked up, and was told frankly that on strict cost-benefit reasoning, the line can never be justified.

A new railroad may yet stimulate new industries, and interstate commerce based on Tibet's comparative advantage. What might they be? The route of the railroad bypasses areas where most Tibetans live. It extends south to Lhasa across the highest, most frigid, arid and permanently frozen sector of the vast Tibetan Plateau. Little is produced along this transport corridor, which follows the Tibet-Qinghai highway connecting Lhasa to Xining, Lanzhou and inland China. However, a significant oil find has been made in the Lhunpola basin, on the edge of the wildlife reserve set up with assistance from George Schaller of the Bronx Zoo. The oil field is close enough to the railroad to possibly make it worthwhile shipping crude north to China, or south to Lhasa, which is chronically short of petroleum products.

There is a chromite mine close to the rail route, still containing remarkably high-grade deposits, which was closed after a few years operation, once an even higher-grade Tibetan deposit was found. That mine might re-open, and China's stainless steel manufacturers, currently heavily dependent on imports, might find it worth their while to haul chromite ore to their steel furnaces. China's stainless steel manufacturing capacity will expand dramatically, when a Thyssen-Krupp plant, financed with World Bank loans, comes on stream soon in Shanghai. In recent years chromite ore has become the number one bulk commodity sent from outer Tibet to China. The railroad will bisect the long belt of ophiolite rock stretching from Tibet's far west all the way east, a host rock containing not only the high grade chromite but also diamonds.

But there seems little prospect China will ever succeed in doing what the Soviet Union managed to do in Mongolia, in comparable circumstances. The natural extreme cold made it easy, once a railroad bisected Mongolia, to integrate the nomads' annual herd cull into a vast network of abattoirs, packing plants and rail freezer vans trundling Mongolian meat off to Russian consumers. Possibly the same could be done in Tibet, as Chinese consumers increase their disposable incomes and their demand for meat soars. But so little has been done to improve the yak and cattle breeds, or the quality of pasture, or herd survival in winter, that Tibetans still barely subsist. Chinese policy encourages them to slaughter a higher proportion of their herd each fall, but nomads resist increasing the slaughter rate, not only because they are Buddhists,

but because the size of the herd is the nomads' only insurance against drought, blizzards and cadres squeezing them for taxes.

If this major investment has little to do with pilgrimage, yak steaks or cheaper cement, what else prompts the iron rooster's arrival in Lhasa? At the 1998 conference of Chinese scientists, there was little doubt as to the real clincher. India had just resumed testing nuclear weapons. Chinese advocates of the railroad seized on this, with evident delight, taking refuge in patriotism. National security overrides economic rationalism, makes viable what cannot be justified by crunching numbers.

The supply lines to China's Tibetan frontier with India are very long. India not only has nuclear weapons but has invested enormously in supplying its Himalayan front line. India's capacity for force projection is considerable, even if it shows not the slightest interest in confronting China. An arms race between the two biggest nations could acquire a fresh urgency, with Tibet as China's forward line. Once rail track extends to the foot of the Himalayan borders of Bhutan, Nepal and India, the largest missiles can be moved and repositioned quickly, taken from one hardened bunker to another. The ultimate justification for the construction of this railroad is China's fear of containment. Fear is the driver of policy, as China seeks new platforms for its burgeoning offensive power projection capabilities. China's accelerating naval build up achieves the same objective in blue water. Now the land frontier with India is gaining a similar saliency, requiring a similar investment in the infrastructure of force projection.

The People's Liberation Army garrisons are today mostly not on the border but in every Tibetan town, the ultimate enforcer of Chinese rule. This is an army that has dug in for the long haul, lives off the land, commandeering the best pasture for its use. Tibetans resent the burden they must bear, of sustaining a Chinese ruling class who hold in contempt those they say they are civilising. The local garrisons exist to quell the people, if there were any uprising. If backup is needed, China now has a Rapid Reaction Force (RRF) which is highly mobile, able to fly into anywhere, within 24 hours. If that lightly armed force should prove inadequate, its' backup is a separate force, much more heavily armed but also intended to be fast and lethal. This Rapid Deployment Force (RDF), armed with missiles and tanks, can rely on air transport, but in Tibet's thin atmosphere heavy lifting is difficult and military airfields are scattered. For the 300,000 men of the RRF and RDF, a railroad to Lhasa, scene of undying resistance to Chinese rule, offers major logistical support. In turn, that requires constant patrolling of the railroad to prevent sabotage.

Beyond Lhasa lies the breadbasket of Tibet, broad valleys with major rivers fed year-round by steady snowmelt. New Chinese towns are growing quickly in south central Tibet. This region, between Lhasa and the Nepali border, is home to high densities of Tibetan population, and is one of the few areas in which China persists in hoping to intensify production and possibly Chinese settlement. To extend branch lines from Lhasa to those towns would be far less of a technical challenge than the construction of the main line across the highest and coldest passes of the high plateau.

These are longer-term outcomes. In the shorter term, the construction phase, scheduled to take eight years, will bring tens of thousands of Chinese in work gangs into Tibet. Construction may be contracted to the People's Liberation Army, which recently completed its contract to lay optical fibre cabling along the same route. The PLA is uniquely positioned, with the men, materiel, and the right political connections, to get a major slice of the railroad construction contract. In turn, it may let subcontracts to global companies offering specialist services, which in turn may seek political risk insurance from their own western governments.

The risks are great. Costs are likely to escalate well beyond the US\$2.34 billion so far allocated. The sum budgeted is more than China poured into Tibet in a 35-year period, between 1950 and 1985. Alternative routes to Lhasa are officially costed at three to four times as much.

The line bisects two wildlife biodiversity refuges for the last remaining migratory herds of Tibetan chiru antelopes, the Chang Thang (Qiangtang in Chinese) and Hoh Xil Reserves. China says it will accommodate the seasonal needs of herds to migrate across the tracks by building concrete culverts and

bridges so animals can pass through. The survival of endangered black-necked cranes, musk deer and antelopes will be threatened by the influx of thousands of poor, underpaid Chinese workers who, with one bullet, can dramatically increase their protein intake. Gunning down chiru is dramatically profitable, as their fur is the source of the softest high fashion shahtoosh wool. The remote Hoh Xil, scene of recent confrontations between poachers and police, is regarded by Chinese geologists as a promising area for oil exploration, but nothing significant has yet been found.

The effects of a heat absorbing rail track on the alternate freezing and thawing of permafrost remains poorly understood. In fact, a major reason for this railroad is that all Chinese efforts at constructing an all-weather blacktop highway into Tibet, immune to buckling and crumbling as soils freeze and thaw, have so far been unable to withstand nature. China is seeking technical co-operation, most probably from Canada and Russia, to overcome these engineering obstacles.

Imperial centres always expect colonies to pay for themselves. A railroad running at a massive annual loss will be under pressure to pay its way. Passenger traffic may be the answer. Already, Lhasa attracts masses of Chinese tourists holidaying in an exotic locale at domestic prices. At rail ticket price, such numbers will explode. The holy city of Lhasa that pilgrims yearn to see will become a theme park. Buddhist pilgrims may grieve the loss of the sacred, but millions of Chinese tourists will enjoy a destination that offers an irresistible combination of exotic surfaces and all the comforts of home.

Chinese posted to work in Lhasa will be better able to afford annual home leave to see their families. Being sent to Lhasa will be less of a hardship posting, more a way of fast tracking a rising career. Each Chinese work unit in Lhasa will have more luxury goods in their commissary, brought in at reasonable cost by rail.

No longer will Buddhist pilgrims need to cover the vast distances to Lhasa seated in bone shaking buses, or lie prone the entire distance in a luxury sleeper bus in which it is impossible to sit up. Nor will they have to do as pilgrims have done for centuries, taking weeks or months to walk, or even years to prostrate, a body length at a time, the entire distance. They may yet choose to do so. Pilgrimage is meant to be arduous, a process of purification, immersed in the immediacy of time and space every step of the way.

Ultimately, the greatest impact of the railroad may simply be that it makes Lhasa liveable for Chinese settlers and sojourners. That will be the cross the Tibetans have to bear. Comfort may be the commodity that rides the rails and achieves what China never till now managed, to assimilate all of Tibet, inner and outer, into China's sphere of prosperity, with Chinese characteristics. The first train to Lhasa may be the fast track to oblivion for Tibet.

'A Train to Lhasa'

**by Claude Arpi
in Rediff.com**

A FEW DAYS AGO, India's former Defence Minister George Fernandes is reported to have told a news agency: "China has built roads up to the border, while there has been negligence on India's part." He further lamented: "China has even built roads in such areas where not a single human being lives or even a blade of grass grows".

The allusion was not lost on anybody. In 1959, while intervening in Parliament on the "Aksai Chin scam", Indian Prime Minister Jawaharlal justified that his government had taken more than two years to discover that the Chinese Liberation Army (PLA) had been building a road on the barren heights of the Aksai Chin plateau in Ladakh, by saying: "Nobody has been present there. It is a territory where not even a blade of grass grows."

It had just come to light that a Chinese road had been built through Indian territory and that the Indian intelligence agencies had failed to notice its construction over the past several years. Kargil could be termed a 'mini' intelligence failure compared to the Aksai Chin blunder.

We should take Fernandes' statement seriously as he is certainly still in the know of the progress China has made to develop its logistics and communications. Is it not the same Fernandes who had dared to say that it was not Nawaz Shariff but a certain Chief of Army Staff who had planned and executed the Kargil episode?

The CEO-General has now come to Agra and like Julius Caesar, he saw and conquered the battle (at least he thought he had), but for India is the real battle in the valley of Kashmir, on the peaks of the Siachen glacier, or in the near-by passes of the Aksai Chin?

In 1950, Mao's China decided to take a great leap toward the West. In October of the same year, the People's Liberation Army (PLA) entered Tibet with two slogans: China was "deeply concerned about the prolonged oppression of the Tibetan people by the imperialists and needed to be liberated". The second slogan was that the borders of China had to be 'consolidated'. Ominous! But who believed in omens in the fifties!

Even Nehru had one day to admit in Parliament: "...but liberate from what?"

In 1951-52, China undertook a gigantic program of road construction on the Roof of the World, linking Lhasa to the province of Qinghai and Sichuan. A few years later, at the height of the Hindi-Chini Bhai Bhai love story, highways to Tsona, the border town with Tawang district of Arunachal, to Yatung, the traditional route through the Chumbi valley to India and the infamous Tibet-Sinkiang highway (through the Aksai Chin) were built.

A few months ago, a new two-fold plan was announced in Beijing. This time it is no longer question of a 'liberation', but of 'development', a motto more in consonance with the beginning of the 21st century than the old revolutionary mantra. However, the second slogan is still the same: 'strengthening the borders'.

As fifty years ago, China is today undertaking a new program of 'development and protection of its borders', but the roads of yesteryear are replaced by faster railway tracks.

Already in October 1995 Xinhua News Agency had announced the "Third Railway Construction Boom." The new railway construction drive was expected to bring new hope to the "economic development of land-locked southwest China". The news agency had reported that Tibet was going to be linked with the mainland by a railway track: "the economic potential of the region, with rich agricultural and mineral resources is yet to be brought into full play due partly to inadequacy in railways."

Since then the “Go West” campaign has intensified and more resources have been invested into what China’s Vice Minister of Railways Sun Yongfu presented last October as a way to “promote the economic development of the Tibet Autonomous Region and to strengthen national defence.” Although the ‘strengthening of the borders’ is listed second in the program, it is without doubt, the most crucial factor for the leadership in Beijing.

Sun Yongfu made the announcement in front of other Cabinet ministers and western executives. It was part of a grandiose Tenth Five-Year Plan (2001-2005), which besides the ‘Tibetan dream’, (since the early fifties, Chinese engineers have been dreaming of a railway to Lhasa), has a proposal to ‘boost the infrastructure of western China’ by laying tracks along the ancient Silk Road from the Southern Xinjiang Railway to the states of former Soviet Central Asia.

UPI commented: “Sun’s mention of defence concerns is a reminder that China’s borders with India, the former Soviet Union and Vietnam have been troubled by skirmishes and full-blown war over the past three decades. Better rail links will facilitate swifter access for military personnel and equipment, which may also be targeted against the country’s occasionally restive minorities.”

Yet another plan was to open a rail link to Burma and Indo-China. One of the tracks would follow the Mekong River, from Kunming turn towards southern Yunnan to go into Indo-China. This would also be linked to the existing networks to create a ‘pan-Asian’ railway right down to Singapore. At the same time, it would bring a railway head very close to north Burma and India.

Last February, the 1118-kilometer railway stretch from Golmud, the current terminus of the Qinghai-Tibet railway, to Lhasa received the final approval from the Chinese State Council (Cabinet). The China Daily had already reported that feasibility studies and construction plans (with four-fifths of the track to be built at an altitude of 4,000 meters) were already well under way.

Premier Zhu Rongji who is soon to visit India declared: “The railway has great significance for the acceleration of economic and social development in Tibet and for the increase of economic and cultural exchanges.” One wonders about the cost of these ‘exchanges’! More than 12 billion dollars have been earmarked for railway construction in China’s western regions over the next five years with a significant portion expected to go for the Tibetan railway.

The Dalai Lama and Tibetans in exile see the opening of Lhasa to railway traffic as a Chinese plot to ‘liberate’ Tibet a second time. Bringing ‘vast seas of Chinese colons’ into their country would be the best way to demographically ‘cleanse’ the Land of Snows, a technique successfully implemented in Inner Mongolia.

The London-based Tibetan Information Network (TIN) recently reported that that “the construction of railways to Urumqi and Kashgar in the western-most Xinjiang Autonomous Region was accompanied by a significant influx of Han Chinese migrants, as was the establishment of a railway to Golmud in the 1960s.”

Apart from the flood of Han colons, the extraction and transport of minerals (like uranium) and precious metals out of Tibet by railway will also benefit the Chinese government which could thus recover some of its investments. Even in Communist China, business is business and investments have to be recovered.

But perhaps, more than the ‘cultural’ investment of Zhu Rongji, the investment on the PLA, is essential in the eyes of Chinese leadership. A couple of years ago, the PLA was deprived of its lucrative businesses, and since then, Jiang Zemin and his colleagues have been looking for ways to pacify and keep the Army busy. Is it not always better for an authoritarian regime to have the Army on its side? This was last seen in Tiananmen in 1989.

TIN commented: “The interests of the People’s Liberation Army are paramount in determining the foundation of national security and military infrastructure in China—two of the key motivations for constructing the railroad,”

For India, the consequences are tremendous. Even if India would decide to build similar roads or railway tracks to protect her borders, it would take at least eight to ten years to begin the work and perhaps as many years to complete it.

Some other events have to be seen in the same context. The first one is the visit of Hu Jintao to Tibet in July. The Chinese Vice President is widely expected to replace Jiang Zemin as Party Chief next year. His visit was meant to celebrate the 50 years of 'Liberation'.

During the course of his stay in Lhasa, Hu declared: "With the passage of 50 extraordinary years, Tibet of today presents a scene of vitality and prosperity with economic growth, social progress and stability, ethnic solidarity and solid border defence. The people here are living and working in peace and contentment."

Most of the Tibetans who hate him for his excesses some ten years ago when he headed the dreaded Martial Law Committee in Lhasa, may not agree with his statement, but it is important to note the emphasis on the 'solid border defence'.

Another aspect is that Beijing has been successful in its bid to host the Olympic games in China in 2008. For Beijing, this is a great victory as for the first time in fifty years, China has been recognised by the concert of nations as a great power able to organza such a world event. For this reason, during the next seven/eight years, China will certainly do nothing to spoil its image of a modern and progressive nation. Beijing knows that lakhs of people will visit China on the occasion of the Games and the visitors will have to be positively impressed.

This 'positive' campaign has been emphasised in the Tibet Daily by Ragdi, Tibet deputy Party secretary, who said: "The battle against separatism has changed from a passive, perfunctory approach to a positive one."

For India, it indicates that for the next few years, China is bound to go for a Chini-Hindi Bhai Bhai policy (perhaps in developing the idea of a strategic triangle between Russia, China and India). Beijing knows that preparations to 'strengthen the borders' take time. It took nearly ten years between the time they began the road construction in Tibet and the attack against India on Tagla ridge in October 1962. Chinese leaders, unlike their Indian counterparts, are in the habit of always planning their 'development' and 'border defences' decades in advance.

In the meantime, India and China have just concluded their ritual border talks: it was the 13th of the series. The Chinese Foreign Ministry refrained from commenting whether progress was achieved on the boundary issue. However, it is doubtful if the Indian side dared to broach the topic of the new railway lines pointing to India.

It was the maiden trip of Foreign Secretary Chokila Iyer, who as a native of Sikkim must have been considered as a fellow countrywoman by her Chinese counterpart!

She is also said to have met Tang Jiaxuan, the Chinese Foreign Minister and exchanged "views on bilateral relations and international and regional issues of common interest".

However, today the stakes are clear, the border talks can continue, but if India gives in to the Chinese claims on Aksai Chin or elsewhere in UP or Arunachal, the Chinese planners will without doubt, include in their Eleventh Five-year plan, a railway track from Lhasa to Kashgar, cutting across Indian stones (if not grass) in Ladakh and closing the loop around India.

It is indeed a far more serious issue than the near-by Siachen glacier.

China's Ambitious Railway

Workers have left families behind to work on the project

By Rupert Wingfield-Hayes

Qinghai, 1 August, 2001(BBC News)-- China is constructing one of the most ambitious railway projects ever undertaken, crossing some of the highest mountain passes in the world. The new line will run more than 1,000km (625 miles) from the city of Golmud, in China's Qinghai province, to Lhasa, the capital of Tibet, and cost at least \$3bn to build.

On the high, arid Qinghai plateau gangs of labourers are manhandling heavy iron rails into place. At 3,000m above sea level, the air is thin and the work is backbreaking. These workers have left behind homes and families far away. For the next seven years this railway line will be their life.

It is all part of China's grand plan to open its vast but remote interior. Even the workers have learned the mantra of the Tibet railway. You Kaixuan, a labourer from Gansu province, says it is a great thing for the Chinese people and will bring development and prosperity to Tibet.

China's motive

The railway will be a tremendous feat of engineering - the highest line ever built, most of it more than 4,000m above sea level. It must cross ever-shifting permafrost - all to link poor and backward Tibet to the Chinese heartland.

China says it is all about economics, about bringing greater prosperity to Tibet, but from an economic point of view this railway really makes very little sense. It is less about economics than it is about securing political control over China's restive Tibetan territories. At the current end of the line in Golmud the central market bustles with activity. This dusty, windswept city stands at the foot of the mighty Kunlun mountains, the wall of rock and ice that for centuries has ensured Tibet's isolation.

Forty years ago, before the railway came, there was nothing here, just open steppe and wandering Tibetan herdsman. But today Golmud is home to 200,000 people, almost all of them immigrants from eastern China. Less than 5% of the population is Tibetan.

Tibet's fears

Wandering through the market, I meet Tashi, a barrel-chested Tibetan herder with an unlikely looking cowboy hat, sparkling green eyes and a permanent grin on his sun-baked face. Tashi and his herds live in the high mountains that border Qinghai and Tibet.

He is deeply concerned about what the new railway will bring. "The railway is bad," he says. "It may help develop the economy but it will mean a lot of people from outside will move into Tibet. "It used to be our place, but with the railway all kinds of people will come."

According to Tibetan activist John Ackerly, Tashi's fears are well founded.

"There is no real reason for this railroad to be built other than to provide for the Chinese military and settlers," he says. "There will be a few benefits for some parts of the Tibetan population but the sad thing is that this will continue a tradition of building large infrastructure projects that the Chinese population needs, while ignoring the real needs of the broad population of the Tibetans." Another train rolls into

Golmud station packed with migrants heading for Lhasa. Most are peasant farmers fleeing a life of poverty on the over-crowded plains of central China.

There are farmers like Lao Zhang. With a heavy bundle perched on his shoulder, he is heading for the bus station. From Golmud he still faces a gruelling two-day journey across the mountains to Lhasa - but it is worth it.

“There are lots of opportunities in Lhasa,” he says. “I can get work there, maybe start my own business. Hopefully I can make some good money.”

China's Railway to Tibet Stirs Mixed Feelings

By Bill Savadove

GOLMUD, 26 July 200, (Reuters) - For ethnic Tibetan Tashi, a planned railway line from China to Tibet holds both the hope of a better life and a threat to his spiritual homeland.

The 23-year-old Tibetan man, who lives in China, has travelled to the western boomtown of Golmud to find work and earn money for a pilgrimage to Lhasa, the centre of Tibetan Buddhism.

He was making the hazardous trip by a 30-hour bus ride across high mountains and some of the most rugged terrain on Earth.

Soon the journey will become much easier.

Work has started on a \$2.4 billion rail link which will stretch 710 miles from Golmud in the western region of Qinghai to Tibet's capital of Lhasa—the highest railway line ever attempted.

China has set an ambitious goal to finish the state-funded project by mid-2007 despite the difficulties of working at high altitudes and laying tracks across shifting permafrost.

Outside Golmud, coloured flags mark the route of the railway line across barren plateau and snow-covered peaks.

Tashi has mixed feelings about the project, welcoming development of the backward region but fearing China will use the railway to take wealth away from Tibet.

“Taking the railway would be better,” he said, sipping tea in a back street hostel in Golmud. “But after the railway is finished, China will take away all of Tibet's resources.”

Chinese officials say the railway will offer an economic lifeline to Tibet and improve the lives of its people.

“When the railway is completed, it will solve transport problems once and for all,” said Qinghai vice governor Bai Ma. “It will solve the problems facing the economic development of Tibet and provide an economic artery.”

Tibet is a strategic outpost for China and the railway will allow it to deploy troops rapidly to quell unrest in the region and handle perceived threats on its borders, diplomats say.

VANISHING WAY OF LIFE

Tibet's Government-in-Exile says the project will allow China to tighten its grip on Tibet, which it occupied in 1950, spur an influx of Chinese settlers and strip the region of its rich natural resources.

“China's western economic development strategy is a way for the Chinese government to consolidate political control of the region,” said Alison Reynolds, director of the London-based Free Tibet Campaign human rights group.

“With more Han Chinese people coming in, that's going to further dilute and undermine the traditional Tibetan way of life,” she said.

Chinese officials say the railway will make freight cheaper and bring more trade, jobs and tourists to Golmud, which now handles 90 percent of the goods flowing into Tibet by truck.

“Transport is the basis of economic development,” said Golmud vice mayor Xia Jiexiang.

Critics say the railway is an impossible feat of engineering, but Chinese officials say they will prevail over nature.

“We are confident we can overcome the difficulties,” said Zhao Xiyu, director of engineering for the project. “The facts will speak for themselves.”

STRONG MEDICINE

The railway line will climb to a height of 16,600 feet crossing the Tanggula Mountains on the border of Tibet with most of its length laid at over 13,100 feet.

Doctors consulting on the project are recommending workers stay on the job only four to six hours a day, six months a year because of the extreme altitude and freezing winters.

They plan a network of medical clinics and will dose workers with traditional Tibetan medicine—red-spotted stoncrop, desert jujube and wolfberry—to stave off altitude sickness.

Construction will rely on machines as much as possible, but the project will still require 30,000 workers, most from outside Qinghai, making them more susceptible to woes from the altitude.

Around half of the single-track railway will cross frozen earth and planners say they have found “reliable ways” to keep the ground stable during seasonal thawing and freezing.

Planners have staked their hopes on keeping the ground frozen with an elaborate system of refrigeration equipment and tunnels to circulate cold air.

The experimental scheme has never been used for a railway although it has been tried on foundations of houses.

CAUTION: ANTELOPE CROSSING

Some have raised concerns that construction will trample the environment and upset the delicate ecological balance.

Chinese officials say it will be impossible to prevent some environmental damage but designers have plotted a route which aims to avoid areas rich in plants and animals.

The project includes tunnels for the endangered Tibetan antelope and other animals to go under the tracks, they said.

China vows to keep the railway running year-round despite frequent earthquakes, landslides, snowfall and high winds.

Chinese-made “Dongfeng 8” diesel locomotives will pull sixteen trains a day between China and Tibet with a one-way trip taking about 16 hours, half the time by bus.

The railway will transport five million tons of cargo to Lhasa and 2.8 million tons from the city annually.

“We came because we think we can do it. Otherwise, we would not be here,” said chief engineer for the project, Zhang Xiuli.

China Attempts to Build Railroad to Tibet

By Paul Wiseman

GOLMUD, 15 August 2001, (USA TODAY) -- It is among the most audacious railroad projects anywhere, ever.

The Chinese government embarked last month on another attempt to build the first railway to the Tibetan capital Lhasa. That means laying 710 miles of track from this remote outpost in Qinghai province across some of the world's toughest terrain: desert, mountains, frozen ground, mostly at elevations over 13,000 feet.

"In terms of engineering and construction, I think it's the most difficult (project) in the history of railways," says Murray Hughes, editor of the trade journal *Railway Gazette International*.

China has tried to build the Golmud-Lhasa line before. But hampered by the harsh conditions, its previous effort ground to a halt 17 years ago at the feet of the Kunlun Mountains near here. Even if it beats the elements this time, the government will have to contend with criticism that it is despoiling the fragile environment, endangering rare animals, wrecking Tibetan culture and deliberately overwhelming the native population by bringing in Han Chinese.

For the Chinese government, the Herculean effort is worth the risk, expense and criticism.

The leadership in Beijing sees the railway as a prestige project, a symbol of what the country can do — like winning the 2008 Olympics and taking on the massive Three Gorges Dam project.

Building the rail line would also more closely integrate China with Tibet, which was captured 50 years ago in what Chinese officials insist on calling the "peaceful liberation." Goods would more easily be shipped in and out of Tibet, where scarcity keeps prices high. Tourists and settlers would more easily travel to Tibet, as would troops.

The Golmud-Lhasa line is part of an ambitious effort to develop China's impoverished West and narrow the gap with such bustling eastern port cities as Guangzhou, Shanghai and Qingdao.

Great march up Mountains

By any account, the scale of the \$2.4 billion project is huge:

China is building 29 train stations, 60 miles of bridges and tunnels and 3,126 railway arches on the Golmud-Lhasa route.

Officials plan to run 16 trains every day, eight each way. Collectively, they would carry nearly 8 million tons of cargo every year.

Due to the extreme heights of the mountains, the railroad would be the world's steepest, sometimes rising at a 2% grade. Chinese railway officials say a 1.2% grade is considered typical. Nearly 600 miles of track are to be built at elevations of 13,000 feet, more than 2 miles above sea level. The highest point is 16,636 feet.

The government is building medical clinics nearly every 12 miles to help workers and passengers cope with the high altitudes. At 13,000 feet, air has just 40% of the oxygen at sea level and 70% of the pressure. Workers from low-lying inland provinces are slowly moved into the work zone so they can acclimate to the thin air: They first spend three days in Qinghai's provincial capital, Xining, then up to a week in Golmud. They work 6 months a year, 4 to 6 hours a day. Workers — 50,000 are expected at one time or another during construction — are prohibited from drinking or smoking at high altitudes and must take two oxygen pills twice a day. The pills stimulate breathing.

To make up for working in uncomfortable circumstances, labourers are paid up to \$360 a month, generous wages in China. The monthly per capita income is about \$80.

For passengers, the railroad will offer rail cars pressurised like jetliners. The trains would go faster through oxygen-depleted stretches of track to reduce the time travellers must spend in thin air. The state-run English-language *China Daily* reported this year that “oxygen bars” would be available to first-class passengers, leaving it unclear how lower-class passengers cope with the altitude. Officials here wouldn’t provide details, but insisted that all passengers would have access to oxygen.

Officials are trying to meet a deadline of July 2007 for completion of the project — just ahead of the Olympics. Complicating the project will be the 340 miles of track to be built on frozen ground. In warm weather, the ground can thaw, causing the track to buckle and sink more than 10 feet.

The Chinese say they have made a technological breakthrough. They plan to build a refrigeration system that captures wintry air and circulates it year-round through underground pipes to keep the earth frozen and stable. The technique has been used in the past to stabilise the foundations for new homes. The Chinese say they are confident. But Zhao Xiyu, director of engineering for the project, says experiments continue even though construction has begun.

Benefits and Disadvantages

Ethnic Tibetans and the groups that represent them abroad have mixed feelings about the project. Once the railway is built, they will no longer have to take a bus or car on 24-hour journeys through spectacular but hazardous mountain highways. Linking Lhasa to the rest of China should deliver economic benefits. Tibetan herdsman would have a broader market for their sheep and yaks. More minerals could be shipped out of Tibet and more consumer goods shipped in, which would provide relief to Tibetans who now overpay for almost everything. Ninety percent of the goods going to Lhasa pass through Golmud by truck, bus and even beasts of burden.

Sitting in a shadowy restaurant in Golmud, several Tibetans visiting from Lhasa enjoy late-morning beers and discuss the railway, pro and con.

The increased cross-border commerce would hurt those who make money buying relatively cheap goods in Qinghai, travelling the bumpy roads to Tibet and reselling the goods for fat profits. Ciren, 28, a former trader who has returned to work as a herdsman, says traders can buy beer for 36 cents a bottle in Golmud and resell it for 72 cents. “They will suffer,” Ciren says. “Prices of goods will go down, and it will be harder for them to make money.”

Numu, 28, a government worker from Lhasa, says the railroad would likely improve the quality of everyday life in Tibet. But he still worries that the railway would bring more Chinese settlers. In Lhasa, Chinese make up more than half the urban population of 230,000. Chinese seem to get the best jobs. Mandarin Chinese is slowly usurping Tibetan as the local language. “It’s a threat to traditional Tibetan culture,” Numu says.

He also worries that the government will not keep its promises to protect the environment. “I hope they keep their word,” he says. “If they do not do the railway properly, this could be a desert.”

Chinese officials promise they can do it all: finish on time and on budget without endangering people or the environment. “Otherwise,” senior engineer Zhang Xiuli says, “we would not be here.”