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## **The China-Myanmar Energy Pipelines: Risks and Benefits**

*By Zhao Hong (Guest Writer)*

### EXECUTIVE SUMMARY

- In November 2008, China National Petroleum Corporation (CNPC) and the Myanmar Ministry of Energy signed an agreement to build a US\$2.3 billion crude oil pipeline and a US\$2 billion natural gas pipeline. The construction is scheduled to be completed this May.
  - The pipeline project opens a lucrative fourth route for China's oil and nature gas imports, and alleviates the shortage in Myanmar's energy needs.
  - Beyond its energy strategic value, the oil and gas pipelines will also create other spillover opportunities for economic cooperation and integration between China and Myanmar, and Southeast Asia.
  - ASEAN member states adopted the ASEAN Memorandum of Understanding on the Trans-ASEAN Gas Pipeline (TAGP) in 2002. Given the ambitious magnitude of the TAGP and the China-Myanmar pipelines, it is possible that the network may be extended into China and beyond.
  - To what extent this project will strengthen China-Myanmar bilateral relations remains to be seen.
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## INTRODUCTION

In November 2008, China National Petroleum Corporation (CNPC) and the Myanmar Ministry of Energy signed an agreement to build a US\$2.3 billion crude oil pipeline and a US\$2 billion natural gas pipeline. Construction started on 31 October 2009 and is scheduled to be completed this May. The dual pipelines will run from Kyaukphu to Muse in Myanmar before entering China at the border city of Ruili in Yunnan Province. In addition to ensuring energy security, the project serves a broader objective of strengthening bilateral relations by deepening regional economic integration through mutual cooperation.

Analysts are divided on the efficacy of such infrastructure projects in promoting regional economic integration and strengthening bilateral relations. This is especially pertinent when supply countries are experiencing risks and uncertainty associated with structural political transition. Projects such as the China-Myanmar pipelines can generate conflict and local resentment – parties to the project have different interests and motivations, land-use compensation issues abound, and mechanisms exist to encourage both parties to seek a greater share.<sup>1</sup>

However, energy can also foster shared interests.<sup>2</sup> Physical infrastructure such as pipelines are likely to have a lasting impact on interstate relations and create greater incentives for cooperation over time.<sup>3</sup> For supply countries, pipelines can provide much-needed employment and revenue, open up regions for development, and have spillover effects into downstream industries such as factories, chemical and fertilizer facilities, and refineries that have incentives to locate themselves close by.

## THE GEOSTRATEGIC IMPORTANCE OF MYANMAR GAS

Although Myanmar is a country rich in natural resources, it does not have notable hydrocarbon reserves. Its proven natural gas reserves of 300 bcm accounted for only 0.2% of total world gas reserves in 2010,<sup>4</sup> and the country remains a net importer of oil because of her lack of oil-refinery facilities.

However, Myanmar's strategic access to the Indian Ocean and the Andaman Sea has given its gas reserves heightened significance. This is pertinent at a time when China's long-standing ally, Pakistan, struggles to contain Islamic extremism and political unrest. India, China's potential competitor, is also working hard to push for "eastward expansion".

Before the military junta, previously known as the State Law and Order Restoration Council (SLORC), took power in September 1988, foreign participation in oil and gas exploration and production was limited. In 1988, the SLORC opened up the country for foreign companies to explore for oil and gas, and its gas production increased from 3.4 bcm to 12.1 bcm in 2010.<sup>5</sup> Myanmar's

current contribution to the region's gas supply is relatively modest though. Its total gas exports of 9.9 bcm in 2007 were less than a third of either Indonesia (33.1 bcm) or Malaysia (31.6 bcm). These natural gas exports are currently produced from the offshore Yadana and Yetagun fields in the Gulf of Martaban. Additional production in the Bay of Bengal, including from the prospective Shwe fields, is set to come on stream soon.

Although Myanmar is not a major energy supplier to China, Chinese national oil companies (NOCs) and China's government have in recent years demonstrated increasing interest in this country's energy resources. China National Petroleum Corporation (CNPC), Sinopec and CNOOC have all started oil exploration there, and have competed with other countries including India and Korea to secure access to new gas fields and potential reserves of gas off the west coast.<sup>6</sup>

The resulting China-Myanmar pipeline project comprises multiple and separate projects, each with distinct contract ownership structures. The major components are a deep-water natural gas development project and onshore gas terminal; an onshore natural gas transport pipeline from western Myanmar to China; and an onshore oil transport pipeline from western Myanmar to China.

For China, this project will open a fourth route for oil and nature gas imports, after ocean shipping via the Malaccan Straits, the Sino-Kazakhstan crude oil and natural gas pipelines, and the Sino-Russian oil pipeline. It is expected to transfer 22 million tonnes of crude oil annually, accounting for approximately 10% of China's total oil import in 2010. Saudi Arabian Oil Co. has signed a MOU with CNPC to supply crude oil through this new pipeline.<sup>7</sup>

For Myanmar, this project will assuage its energy shortage. According to the contract, Myanmar is entitled to 2 million tonnes of the transported crude oil for domestic consumption. With China's assistance, an oil refinery factory with a capacity of 56,000 barrels per day (b/d) will be constructed in Mandalay. Upon completion, the double output of the refineries in Myanmar is expected to meet domestic needs.<sup>8</sup> Myanmar will also supply 10 billion cubic meters of gas to China per year, and it is predicted that its gas production will increase from 12.1 bcm to around 24 bcm by 2019. China will become its largest stable gas buyer.

## A CATALYST FOR COOPERATION?

The pipeline project will undoubtedly enhance energy cooperation between China and Southeast Asia. With large reserves of oil and natural gas, Southeast Asia has long been an important exporter of oil and gas. But this historical pattern is changing as the region's demand grows ever stronger. The region's oil output has been falling steadily since peaking at around 2.9 million barrels per day (mb/d) in 1996.

Oil production is projected to drop to 2.4 mb/d in 2015 and 1.4 mb/d in 2030. Similarly, gas production in Southeast Asia as a whole is projected to increase from 203 bcm in 2008 to 248 bcm by 2030. If investments are not increased and no new gas field is found, the surplus of supply over demand is expected to narrow from 63 bcm in 2008 to just 10 bcm by 2030. These statistics point towards the need to enhance regional energy cooperation and increase investment in energy sectors.

An integral part of ASEAN's regional economic co-operation has been focused on the energy sector to ensure greater security and sustainability of regional energy supplies. In 2002, member states adopted the ASEAN Memorandum of Understanding on the Trans-ASEAN Gas Pipeline (TAGP). Once realized, the TAGP will potentially link almost 80% of the ASEAN region's total gas reserves.<sup>9</sup>

The first cross-border gas pipeline in ASEAN exports gas from Malaysia to Singapore and was commissioned in 1991. Since then, several regional gas pipelines have been completed and several more are being designed and constructed. Full interconnection of these pipelines would see the creation of an interconnected gas grid and increasing gas trade throughout ASEAN's 10 countries. Given the ambitious magnitude of the Trans-ASEAN gas pipeline and the China-Myanmar pipelines, it is possible that the network may be extended into China and beyond. As some advocates of the TAGP argued in the 1990s, the regional gas network would eventually connect with gas markets in China, Japan, and India, making it the largest pipeline network in the world.<sup>10</sup>

## DEEPER REGIONAL INTEGRATION

The oil and gas pipelines project also creates other spillover opportunities for economic cooperation and integration between China and Myanmar, and Southeast Asia. The Chinese and Myanmarese governments have negotiated to build a highway and a railway along the pipelines to connect Kunming with the new deep-sea port and the industrial zone at Kyaukpyu. This is expected to be completed by 2015. Its completion will fuel progress for entire populations in the pipeline region, and further enhance connectivity and long-term economic links between Kunming and Kyaukpyu.

The project has also been positioned as a "win-win" for China and Myanmar in terms of regional economic development. For China, it will bring opportunities to its economically underdeveloped southwestern provinces, in particular Yunnan and Sichuan provinces. Currently, southeast China is the only region in the country that lacks oil refineries. It is expected that the pipelines will not only alleviate Yunnan Province's oil shortages but also diversify its economic activities.

Bilateral trade has indeed increased between China and Myanmar, fueled by the need for large amounts of materials, such as cement, steel and transportation equipment for the construction of the pipelines. In spite of the global financial crisis, China-Myanmar bilateral trade grew from US\$2.9 billion to US\$7.0 billion in 2012, a sharp increase of 140%.<sup>11</sup> Trade between Yunnan and Myanmar reached US\$1.8 billion in 2010, accounting for above 40% of total China-Myanmar trade. Myanmar is currently Yunnan's largest trading partner among ASEAN countries.

Myanmar also stands to gain from the project strategically and economically. Firstly, it will help Myanmar reduce its over-dependence on Thailand for FDI and as an export market. For a long time, Thailand had been Myanmar's largest foreign investor and trade partner. In 2010, the total value of Thai FDI in Myanmar was US\$10.4 billion. In the same year, Myanmar-Thailand bilateral trade reached US\$4.9 billion, accounting for 41% of Myanmar's total imports and exports.<sup>12</sup> Since the construction of the Yadana gas pipeline to Thailand in the mid-1990s, all of Myanmar's gas exports have gone to Thailand. The China-Myanmar gas pipeline will provide Myanmar an alternative export market for its natural gas and other commercial goods.

Secondly, it will also increase Myanmar's foreign exchange earnings and reduce Myanmar's trade deficit with China. Myanmar is short of international reserves. In 2006, it had foreign exchange reserves amounting only to US\$ 1.3 billion, largely from the sale of gas to Thailand. Although Myanmar's total trade with China grew from US\$1.2 billion in 2005 to US\$7.0 billion in 2010, its trade deficit with China also increased from US\$0.7 billion to US\$4.4 billion in 2012.<sup>13</sup> The oil and gas pipeline project is expected to reap enough financial earnings for Myanmar to cover this deficit.

In accordance with international practice, crude oil transported from Myanmar-China pipeline will be charged a 16% value added tax based on the landed price. The current landed price for crude oil in Myanmar is about US\$280 per ton. Calculated on 20 million tons of crude oil transported via this pipeline, Myanmar's government will be able to obtain foreign exchange earnings of about US\$900 million every year, and this does not include the transport tariff (about US\$1 billion annually).<sup>14</sup> In addition, China will purchase natural gas from Myanmar for the next 30 years. If calculated on US\$4 per 1000 cubic feet, Myanmar will be able to gain US\$900 million from its sale of natural gas to China each year.<sup>15</sup> Therefore, from the oil and gas pipeline project alone, Myanmar will be able to earn at least US\$ 1.8 billion of foreign exchange per year.

Thirdly, Myanmar will be able to attract more FDI. According to its statistics, China's FDI in Myanmar was only US\$92 million in 2007. But in 2010, China's approved FDI in Myanmar increased dramatically to US\$8.3 billion, with accumulated value of US\$9.6 billion (by March 2011). With the inclusion of Hong Kong's

FDI, China has been the largest foreign investor in Myanmar.<sup>16</sup> Since the launch of the pipeline project in June 2010, 15 cooperative agreements to enhance bilateral trade and investment have been signed. In addition, China Development Bank and Import-Export Bank agreed to provide US\$4.2 billion of interest-free loans to Myanmar for the construction of the pipelines and other major infrastructures (including logistic systems). China intends to extend these infrastructures to Southeast Asia to promote economic integration between China and Southeast Asia.

## LOOKING AHEAD

Risks and challenges for the project are significant, especially in light of political and economic changes faced by Myanmar's new government. While the present situation still gives China a comparative advantage over other competitors, its policies and approaches pose political, social and economic risks.

Firstly, the pipelines bear high cost and present potential risks. It is estimated that the entire project (including a refinery and ethylene plant in Yunnan) costs approximately US\$5 billion.<sup>17</sup> The pipelines travel across a set of complex and diverse terrains, including transverse mountains, surging rivers and virgin forest. More importantly, the route passes close to areas controlled by ethnic militias. Such issues have made Beijing concerned about the security of the pipelines.

Secondly, economic spillovers from China's investment in Myanmar have been less than expected. While there has been increasing Chinese enterprises (including CNPC) investments in building the pipelines and infrastructure in Myanmar, Chinese companies cannot find enough qualified local workers to get involved in these projects. This has been attributed to different cultures and lifestyles. The expected creation of related down-stream industries has also not been forthcoming. Therefore, the job opportunities and direct benefits that accrue to the local people by Chinese companies are limited.

Some foreign analysts also observed that most Chinese loans and investments were government-led and mainly went to Myanmar's state-owned factories and major infrastructure projects. These monies failed to bring tangible benefits to its citizens, and has stirred up strong anti-China sentiment in Myanmar.

Since political reforms in Myanmar picked up speed, the rapid growth of Chinese investment was abruptly interrupted.<sup>18</sup> According to Myanmar official data, China's investment in Myanmar was only US\$190 million from December 2011 to September 2012, a major decrease when compared to the monthly average between 2010 and 2011. According to Chinese journalists in Yangon, there has been no announcement of any major investment in Myanmar since the suspension of the Myitsone dam.

The sharp reduction of China's FDI is a natural response to recent "China-unfriendly" moves by Naypyidaw, and Beijing has warned its companies of the "rising political risk against Chinese investment in Myanmar".<sup>19</sup> Another reason for the caution is the uncertainty of Myanmar's domestic politics. With the uncertainty surrounding foreign investment law and power distribution among central/local parliaments and governments, Chinese firms are adopting a "wait and see" attitude.<sup>20</sup>

In conclusion, the above analysis suggests that although China needs Myanmar for a variety of reasons, such mutual dependence is hardly symmetrical. China has much to lose if the bilateral relationship and energy cooperation turn sour. The stakes are also up against Myanmar, considering its earnings from China's trade and investments into the country. Currently, neither the 10 ASEAN member countries nor Indian trade and investments into Myanmar are as large as those by China. Western investors are also cautious in their economic involvement in the country as a result of the uncertainties arising from the political transition. Considering China's rich financial resources, geographical vicinity and other advantages, Myanmar has yet to find a realistic alternative to meet its economic needs.

In any case, to what extent this project will strengthen China-Myanmar bilateral relations remains to be seen.

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**Zhao Hong** is a visiting senior research fellow at East Asian Institute, National University of Singapore.

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Editors: Ooi Kee Beng  
Benjamin Loh

Institute of Southeast Asian Studies  
30, Heng Mui Keng Terrace  
Pasir Panjang, Singapore 119614  
Main Tel: (65) 6778 0955  
Main Fax: (65) 6778 1735

Homepage: [www.iseas.edu.sg](http://www.iseas.edu.sg)

## Endnotes

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