COOPERATION BETWEEN MYANMAR AND CHINA IN ENERGY SECTOR: OIL AND GAS SINCE 1988

Thida*

Abstract

As the development and utilization of energy has boosted development of the world economy and human society, the resource- rich countries became important on the political stage of international arena. Myanmar is not only strategically important for its location but also rich in natural resource especially energy. It is a strategic country for the region and many coutries. Likewise, it has been a crucial interest for neighbouring countries particularly China. China has been a major economic partner while it has cooperated closely in Myanmar's oil and gas sector. Moreover, as a consequence of isolation from the international community after the 1988 military coup, Myanmar needed China's investment in its economy. By cooperation with China, Myanmar also gained necessary income from trade and foreign direct investment (FDI). However, Myanmar's growth pattern, with a major concentration in energy and the extractive industries created huge pressure on its environment. The successive governments managed energy cooperation and Myanmar faced troublesome condition in local community and domestic politics. Under the NLD government, plans were underway to amend existing laws, bylaws and regulations in oil and gas sector in the country. Based on circumstances, objectives of the research are to analyze how Myanmar has used oil and gas for interests in its relations with China since 1988 and to find out how Myanmar has troublesome circumstances domestically by cooperation with China.

Keywords: Myanmar, energy, oil and gas, strategic, cooperation

Introduction

As the development and utilization of energy has boosted the development of the world economy and human society, the resource rich countries became important on the political stage of international arena. Myanmar is not only strategically important for its location but also rich in natural resource especially energy. It is a strategic country for the region and many coutries. China is one of countries with a fast-growing economy that led to being the largest energy consumer and producer in the world. In China's pursuit of regional economic, political and social stability, Myanmar has been a crucial interest for raw materials and markets in the region. China has been a major economic parter while it has cooperated closely in Myanmar's oil and gas sector. Myanmar is geopolitically significant to China given its access to the Indian Ocean and its extensive natural resources. It also would be considered as a strategic role as part of the "China's Belt and Road Initiatives(BRI)". Therefore, China has developed a strong interest in securing Myanmar's abundant natural resources since the late 1980s. On the other hand, the discovery of large offshore gas deposits in the early 1990s led Myanmar to export gas partly due to low domestic usage at the time. Meanwhile, Myanmar faced with sanctions of the western countries as a result of the 1988 coup. As a result of isolation from the international community, Myanmar needed to get friendly relations and cooperation with its neighbours. Eeventualy China became a closer country with FDI, trade and development assistance. At the same time, China demanded Myanmar's natural resources including energy and sought to fulfil the needs of Myanmar by providing some assistances such as modern military weapons, equipments, funding and training in Myanmar. Based on circumstances, objectives of the research are to analyze how Myanmar has used oil and gas for interests in its relations with China since 1988 and to find out how Myanmar has the troublesome circumstances domestically by cooperation with China.

^{*} Dr, Lecturer, Department of International Relations, Yangon University of Foreign Languages

Myanmar Energy Sector's Needs for Development

Myanmar is rich in natural resources including energy resources. Its sources of energy are crude oil, natural gas, hydroelectricity, biomass and coal. Possession of large resources of natural gas became a significant role in the country's energy mix. Offshore and deep water natural gas production sites are located in the Bay of Bengal in Rakhine State. In the early 1980s, production of Myanmar's oil and gas did not improve due to technical limitations and government reluctance to accept intervention by foreign operators. After the State Law and Order Restoration Council (SLORC) took power in September 1988, it changed from the centrally planned economy to the market-oriented economy. SLORC welcomed foreign direct invetsment while opened up the opportunity for foreign companies to explore oil and gas.

With the adoption of market oriented economy in 1989, the Government formulated twelve objectives of economic, social and political. Among them, one of the objectives was "Development of the Economic Inviting Participation" in terms of technical know-how and investments from sources inside the country and abroad. With this aim, *the Union of Myanmar Foreign Investment Law (FIL)* was promulgated on 30 November 1988 and the procedures relating to the law were endorsed on 7 December 1988. Although government adopted FIL, the result of onshore oil exploration were still low.

Therefore, in 1993, SLORC invited foreign bids for offshore exploration in eighteen Concession gas blocks, thirteen blocks in the Gulf of Martaban and five blocks off the coast of Rakhine State in Myanmar's oil and gas sector. Myanma Oil and Gas Enterprise (MOGE) has been a sole operator of oil and gas exploration and production. Myanmar is divided into production gas blocks for the purpose of managing exploration and drilling activities. There are 104 blocks demarcated in both Onshore and Off-shore for conducting petroleum operation, fifty-three blocks of Onshore and fifty-one blocks of Off-shore as indicated in the Map (1). Myanmar's proven energy reserves were comprised of 210 million barrels of oil, twenty trillion cubic feet of gas. It permitted exploration licenses to multinational oil and gas companies and more participated in oil and gas extraction fields since 9 October 1989 for petroleum exploration and production sharing basis in both onshore and offshore areas. Among these, China is the largest investor. International Oil Companies concluded Production Sharing Contract (PSC) with Myanmar.



Map (1) Offshore and Onshore Gas Blocks in Myanmar

Source: http://www.kyotorteviewsea.org/Van schendel eng04.htm

The Need of Energy for the Economic Development of China

Since the 1990s, the Middle East and North America (MENA) had been supported China's domestic economic growth by expanding opportunities for exports and acquiring resources to enhance China's energy security. However, stagnant production and rising consumption of oil contributed to rising demands. Although the Chinese government had promoted energy conservation and accelerated supply of energy through the use of market mechanisms, China's growing dependence on oil from the Middle East was controversial. Therefore, China embarked on a "Go-Out" policy to procure energy asset in July 1994. In late 1995, the government launched "grasp the large and release the small" policy which aimed several hundred large State Owned Enterprises (SOEs) into the world-class business. Therefore, in pursuit of the multi-pronged strategy, China endorsed overseas equity investment and entered a range of contracts with various foreign nations. Especially it eagered to cooperate with the resource-rich neighboring countries including Myanmar.



Map (2) Chinese String of Pearls

Source: http://www.StrategicStudiesInstitute.army.mil/

According to the Map (2), access to Myanmar's ports and overland transportation routes through Myanmar was vital for China. Myanmar's location at China's Southwest is strategically important for its reach to the Indian Ocean via Myanmar. It would be able to shorten the distance by 3000 km by avoiding the Straits of Malacca. Furthermore, the Sino-Myanmar oil pipeline would reduce by over 1,820 sea miles the journey to Guangzhou (City of China) from the Middle East. In terms of transportation, Myanmar is the only passage for Yunnan to reach South Asia and an important gateway to the Indian Ocean. Therefore, China enhanced multidimensional relations with Myanmar and especially pursued closer cooperation in various sectors. Subsequently, its business enterprises had been heavily involved in Myanmar's industrial infrastructure. In cooperation with Myanmar, China aimed at three main fields; infrastructure development, supporting State Own Economic Enterprises (SEEs) and energy exploration. China mainly focused on Myanmar's energy among three fields.

The Cooperation between Myanmar and China in Oil and Gas Sector

Myanmar and China have experienced a long history of their relations. After changing its foreign policy towards its neighbours and Southeast Asian countries for good relations in early 1990, China enhanced diplomatic relations with its all ten Southeastern neighbors especially Myanmar. When SLORC, which later was renamed as State Peace and Development Council

(SPDC), opened up Myanmar for foreign economic investment, China stepped into the vacuum that was created by Western sanctions and compensated for Myanmar's need for trade and economic cooperation. When China began to seek new resources and markets in Myanmar in 2000, the economic cooperation between the two countries became closer. In 2001, Chinese enterprises involved in Myanmar oil and gas explorations. These companies are CNOOC, SINOPEC, CNPC, China Huanqiu Contracting and Engineering (HQCEC), Chinnery Assets Ltd. (CAL) and China Focus Development Ltd. The main offshore gas fields are Shwe Gas Fields (A-1, A-3), A-4, M-10, AD-1, AD-6, AD-8, AD-7. Among them, Shwe natural gas field, which is located offshore of Rakhine State is the main field of Myanmar and China cooperation in oil and gas sector and consist of three independent gas discoveries, Shwe gas field, Shwe Phyu gas field, and Mya gas field. These deposits are collectively one of the world's largest with an estimated twelve trillion cubic feet (tcf) of gas.

In September 2004, the China Petroleum & Chemical Corporation (SINOPEC), the Dian-Quan-Gui Petroleum Exploration Bureau of China, and the Myanmar Oil and Gas Enterprises (MOGE) signed a Production Sharing Contract (PSC) for exploration. Both countries invested US\$ 30 million for exploration. In 2005, oil and gas exploration had increasingly expanded. In late 2005, Myanmar signed a Memorandum of Understanding (MoU) to sell 6.5 trillion cubic feet (tcf) of natural gas to China. Duration of contracts with China was thirty years.

For strengthening cooperation on oil and gas sectors, the China National Petroleum Corporation (CNPC) and MOGE concluded three producing sharing contracts for blocks AD-1, AD-6, and AD-8 gas exploration on 15 January 2007. However, the contracts were seemed to based on political factors. China vetoed a draft resolution set forth at the UNSC on 12 January, 2007 when both the United Kingdom and the United States were calling on the Myanmar government to cease military attacks against the ethnic minorities and took steps to advance into a genuine democracy. Consequently, three days after the sanction cancel for Myanmar on 15 January 2007, three offshore oil and gas production sharing contracts (AD-1, AD-6, AD-8) were permitted to China. It is possible that Myanmar permitted its closer cooperation with China on oil and gas exploration and production sectors as China stood on Myanmar in the international arena. The fact led to the motivation that Myanmar has used energy sources as a political instrument in its relations with China.

In 2008, Myanmar and China signed an agreement to sell natural gas from A-1 and A-3 blocks to China via pipeline. In addition, on 26 March 2009, China and Myanmar signed an agreement for the joint construction of US\$ 1.5 billion crude oil and US\$1.04 natural gas pipelines. Again on 16 June 2009, a Memorandum of Understanding to the Myanmar-China Oil Pipeline was signed in Beijing between the Ministry of Energy and China National Petroleum Corporation (CNPC). In reality, India and China had tried over Myanmar's oil and gas sector to build a pipeline to transport natural gas from Shwe Gas field. Although India negotiated pipeline plans for several years, they were finally rejected by the Myanmar military government. In the mean time, economic sanctions from western countries became serious challenges to Myanmar. Since the early 1990s, China had been the major provider of weapons, and military hardware to Myanmar. Moreover, it also supported to Myanmar whenever the country came under external pressure to undertake reforms. These circumstances pushed Myanmar to seek a close relationship with China and led significant coopertaion in construction pipeline from Shwe gas field.

Myanmar-China oil and gas pipelines run in parallel and started near Kyauk phyu, Rakhine, on the west coast of Myanmar. The crude oil pipeline began at Maday Island, whereas the gas pipeline established its strating point from the Ramree Island in Kyauk Phyu. The pipelines are about 2500 km long, and over 770 km (480 miles) laid in Myanmar's territory. According to the Map (4), the pipelines run the Rakhine, Mandalay, Lashio, and Muse on Myanmar. Then, the gas

pipeline runs Guizhou, Chongqing, and Guangxi in China. Finally, the pipelines end at Kunming, the capital city of Yunnan Province. One of the pipelines transported gas from Myanmar and the crude oil pipeline carries the crude oil that CNPC imported from Africa and the Middle East into China via Myanmar.



Map (4) Sino-Myanmar Oil and Gas Pipelines

Source: *Briefer on Chinese Investments in Myanmar*, Ministry of National Planning and Economy of Myanmar, Yangon, January 2014

The pipelines' construction on the Myanmar section began in June 2010 and started on the Chinese section about three months later. In addition, a 300,000 - ton crude oil wharf in Beijing and the 650,000 m² reservoirs at Maday Island in Rakhine for storage of water were built for the Myanmar-China pipelines. The reservoir is the main source of water for the pipeline operation. The pipeline stake-holders are MOGE and Southeast Asia Crude Oil Pipeline Company Limited (CNPCSEAP). MOGE shared 49.1% while CNPCSEAP possesses 50.9%.

The overland Shwe gas pipeline was completed on 12 June 2013 and started to transport gas to China on 21 October 2013. Myanmar got 20% of the gas from the pipeline. The average total revenue for natural gas export from Myanmar to China is US\$ 31.066 billion for thirty years (2013-2043). The Onshore Crude Oil Pipeline Ownerships were MOGE, CNPCSEAP, and the Shwe Consortium. The share included MOGE (8%), South-East Asia Crude Oil Pipeline Ltd (CNPC) (51%), Daewoo International (24%), ONGC Videsh Ltd. (8%), Korea Gas Corporation (KOGAS) (4%) and Gas Authority of India Limited (GAIL) (4%). The oil pipeline was completed in August, 2014.

With China's assistance, an oil refinery factory with the capacity of 56,000 barrels per day was constructed in Myotha, Mandalay Region. An agreement between China and Myanmar in oil and gas sector provided to import overseas oil via the Bay of Bengal and pumped it through the pipeline to supply a new a 260,000 billion barrels per day (bpd) refinery in landlocked Yunnan province. The 2389-km long oil pipeline carried 22 million tons of crude oil per year from the Middle East and Africa to China. In addition, China has transported oil from the Maday Island to southwest China through underground pipelines since 2016. Although the oil pipeline had completed in 2014, the transportation of oil was only started on 6 April, 2017 due to the waiting for the testing time and permissions of licenses.

Sino-Myanmar pipeline is the fourth most important energy transportation route for China after the Central Asia pipelines (Kazakhstan- China oil pipeline and Turkmenistan -China gas pipeline), sea transportation and the Sino-Russia pipeline. It reaches Kunming via Mandalay and

Muse. Through Kunming, it has direct linkages with major cities in China. Since Myanmar became an integral part of Beijing's "String of Pearls" strategy, China secured its energy access from the Indian Ocean. It was the fact that China has taken a big step. Moreover, China also built a gas reserve base and a wharf for oil tankers near Kyauk Phyu in Rakhine State, marking the opening of a new oil trading route. The new oil gateway fitted with China's BRI, linking with Central Asia and Europe, also provided a direct alternative route to transport Middle Eastern oil via the Malacca Straits and Singapore. According to the Vice Governor of Yunnan, China's main theater of international relations is the ocean. China's coastal line is on the east side, leading naturally to the strategic prioritization of the Pacific. For inland China, however, it is more convenient and active to use the Indian Ocean as the outlet. It can also fulfilled foreign direct investment in Myanmar's energy sector. Therefore, it can bring enormous advantages to China and long-term strategy to promote connectivity and cooperation between Myanmar and China.

Beyond the Rakhine blocks, CNPC had been explored several onshore blocks, including Tuyintaung RSF-2, Gwegyo- Ngashandaung RSF-3, Tetma IOR-3, IOR-4, Indaw-Yeman C-1, and Shwebo- Monywa C-2. Furthermore, in 2017, Myanmar and China agreed to sell 80% of the discoveries of oil and gas from the new test well, Block-F (Ngahlaingtwin area) in Salin Township, Magway Region. However, it was not commercially viable until now because of technical limitation.

Since Myanmar had changed its economy from the centrally planned economic system to the market-oriented economy in late 1998, the aim of China's long- term energy security directed towards the official investment in Myanmar and its investment became rising. China was the 13th largest foreign investor in Myanmar in 2004. In 2006-2007, China's investment in Myanmar reached US\$ 281.222 million. In 2010, China had invested the US\$ 12.3 billion in eight sectors, including oil and gas, electric power and mining. The amount of oil and gas was US\$ 1.88 billion and 40.20% of all investment. After the USDP government came to power in March 2011, the Government strived to accelerate oil and gas exploration and promoted foreign direct investment with economic reforms and loosening of international sanctions. Therefore, the total amount of China's foreign direct investment had improved apparently in 2011.

Although China possessed a well-developed strategic blueprint with South Western neighbours through Myanmar, the rapid changes in Myanmar's domestic politics brought serious challenges to both China's existing interests in Myanmar and its strategic planning for the future. Myanmar's suspension of the Myitsone dam on 7 August, 2011 and the resuming its relationship with the Western countries including the United States frustrated China's expectation. Although Myanmar-China interactions became at high level under the USDP government and energy sector had captured 86% of the total FDI inflow to Myanmar in October 2013, the total amount China's FDI had reduced in 2012-13 and 2013-14 significantly and Chinese companies were reluctant to commit after suspending the Myitsone dam by President U Thein Sein. Therefore, the suspension of the Myitsone dam was generally considered as the turning point in the cooperation by the Chinese and international media.

However, more Chinese investment flocked to the country for business opportunities with the opening of more manufacturing sectors to Foreign Investment by the Myanmar government in January 2014. Therefore, the total amount of China's FDI had improved from 2014-15 to until 2017 (April). On 30, April, 2017 the amount of China's FDI in Myanmar's oil and gas sector was US\$ 2695.579 million. The production of Shwe natural gas fields was increased from 2013 to 2019. Therefore, the project made a tremendous contribution to the Myanmar economy not only by the influx of a huge investment into the country but also by the benefits acquired through the gas sales throughout the term of the project.

Impacts of Sino-Myanmar Oil and Gas Pipelines

In cooperation between Myanmar and China, there are pros and cons for both countries. From economic point of view, it brought many development opportunities not only for China but also for Myanmar. Myanmar's oil and gas projects could attract more foreign investment, which fueled much of Myanmar's economic growth. Therefore, Myanmar stood to earn significant revenues by selling its oil and gas resources on world markets. Myanmar received US\$ 6.905 million per year for each of oil and gas pipelines. Myanmar also got land rental. In addition, transit fee is \$1 for every ton of crude oil.

Daewoo International projects would provide net profits of US\$86 million annually for thirty years while Myanmar could take in up to US\$ 17 billion over the life of the deposits. According to the contract, Myanmar was entitled to take up two million gallons per day of the transported crude oil for domestic consumption. Therefore, this project assuaged Myanmar's oil shortage as well. On the other hand, cheap fuel cost can save the user income and also reduce Myanmar's trade deficit with China. In addition, the China Development Bank and the Import-Export Bank provided US\$ 4.2 billion of interest—free loans to Myanmar for the construction of the pipelines and other major infrastructures. Therefore, Myanmar got the better energy development by exporting natural gas to China. CNPC had also donated \$12.5 million for construction of fourty-four schools, twenty-four health clinics, and other projects. Moreover, the pipelines' construction brought employment opportunities for ten thousands of people, a large number of engineering and technical personnel training, promoting the development of tourism in Myanmar. Therefore, oil and gas cooperation with China is beneficial for national economy. Moreover, the pipelines' construction particularly enhanced Myanmar's reputation as an oil and gas producer which spurred greater investment in the energy sector.

On the other hand, China benefited not only as a convenient alternative to oil and gas supplies from the Middle East but also for mitigating the country's reliance on the Straits of Malacca. After extending the crude oil pipelines to Kunming, a refinery and ethylene plant was also built. Therefore, these pipelines supported 400,000 barrels of oil a day and twelve billion cubic meters of natural gas a year to China's southern Yunnan province, which had the third lowest GDP per capita of China's administrative divisions. As a major step in Beijing's quest for energy security, it helped Yunnan to diversify its traditional economic structures and supported China's southwestern development. The crude oil is used as the feedstock for a new refinery in Kunming and Myanmar natural gas is used for industries in Yunnan Province and beyond. On the other hand, the two pipelines reduced transport costs and time for China. Furthermore, it could establish trade access routes from the Bay of Bengal to Yunnan. According to the developmental strategy, the two pipelines brought new opportunities for China's underdeveloped south-western provinces. In addition, the building of refinery and ethylene plant would be attracted more investments from Chinese State Owned Enterprises (SOEs) and big international multilateral companies. Therefore, China would gain its southwest "bridgehead" strategy through connecting with Southeast Asia and South Asia.

However, there had been many challenges on both Myanmar and China. The cons for China consist of posed political and social risks, including the high cost of pipelines and increasing resentment of Myanmar local people along the pipelines towards Chinese business companies. The cons for Myanmar were troublesome conditions for local communities. As the pipelines infrastructure was so huge and had to travel the Rakhine, Magwe, Mandalay and Shan State through twenty-two townships along a 980km course across Myanmar, the project constructed over massive areas of agricultural land. As a country that relies on an agricultural economy, Myanmar has negative impacts on both environment and local communities. Farmers lost their lands in surrounding areas. Although Posco Daewoo Company spent US\$ 1,992.334 for education,

US\$ 1,242,495 for health, US\$ 2,078,504 for others, US\$ 562,162 for environmental conservation. As for example, environmental efforts included rehabilitation mangrove and waste materials according to the agreement. Regions along the pipeline routes received negative impacts including land acquisitions, environmental degradation, human rights and labour issues, and transportation difficulties related to roads damaged during construction by cooperation with China. China's policy and approaches posed political, social and economic risks among the local Myanmar communities. In Mandalay, roads and drinking ponds near the pipeline route in Natogyi and Tada Oo Townships had been damaged during construction. Moreover, the pipelines cross the entire length of the country from Rakhine State to Yunnan Province passed through heavily populated and fertile agricultural areas. Then, the long strength of pipeline affected environment including cultivated land, river, stream, forest, and mountains, which are vital to Myanmar's rich biodiversity. Furthermore, in offshore oild fields, main impacts affected negatively on fishing, and mangrove conservations. Consequently, some local people have negative impacts as they experienced implications on environment, livelihoods, culture, and social life.

According to Myanmar China Pipeline Watch Committee's (MCPWC)'s interview, local farmers experienced that the soil has not yet recovered for three years after the building of pipelines. It assumed that Myanmar has undergone a number of major natural disasters due to these circumstances. Cyclone Nargis struck the Ayarwaddy Delta in 2008 as well as Cyclone Giri struck Rakhine State in 2010. In addition, pipelines were also crossed under the riverbed of the Ayarwaddy River near Yenangchaung. According to the Myanmar China Pipeline Watch Committee's Research in February 2015, the dyke on the west bank of the river has collapsed. In 2015, severe landslides and flooding across the country occurred due to strong monsoon rain. Consequently, the pipeline reappeared due to a landslide in Nat Yay Kan Mountain in Nga Phe Region.

Although the pipeline provided required gas supply to Yunnan Province, the villagers of Rakhine in Myanmar left largely in the dark due to the insufficient of power. Myanmar faced with many risks and challenges including insufficient infrastructure, energy needs, local concerns and impacts, and ethnic tensions. In the democratic transition since 2011, civil society organizations, NGOs and local interest groups became more active and some opposed the pipelines' construction for risks of losing land, jobs, and livelihoods.

The impacts of these projects could be impediment to welfare of local people, socio-economic stability and bilateral ties. Although Chinese companies in Myanmar cooperated for their energy needs, they lacked an understanding of local community, social customs and and failed to predict political trends. China's approaches posed political, and social risks including increasing resentment towards Chinese businessmen and concerns in local community, stability and worries from other neighboring countries. Eventually, China's thrust for energy has fueled some local anti-China sentiment. Under the military government, Chinese companies were consulted with the local communities after they received the government's approval to operate the offshore and onshore gas and the construction of pipelines. They usually lacked corporate social responsibilities.

In 2011, the pressure on Chinese existing economic interests on the ground is strengthened by the increasing competition from the West with the changes of political and economic reforms after suspending the Myitsone dam project. As the security of China's energy investment, such as oil and gas pipelines is its priority, China launched massive public relations campaigns inside Myanmar that aimed at improving its image and relations with the local communities in Myanmar. Therefore, bilateral relations became strained and Myanmar's long-term interests with China lie in maintaining under the new civilian government.

In transporting oil in 2017, local fishermen faced difficulties due to the transported-oil ships at the Maday Deep-Sea Port. In addition, they were not permitted to catch fishes in oil

transportation period. The limiting time is about two times or three times in a month. In one time, the limiting time lasted at least about three days. As most of the people on the Maday Island are earning on fishing, they had lost their income about 400000 kyats or about 600000 kyats in a day during their fishing time. Therefore, the local communities were demanding to solve and to get the chance for catching at the central water-way in May, 2017. Nevertheless, Myanmar's civilian government led by Daw Aung San Suu Kyi, continued to rely on China's investment because Myanmar is sandwiched between two big power, China and India, and it is indispensible one for Myanmar. However, the companies had to submit the certificate of Environmental Impact Assessment (EIA), Social Impact Assessment, before gas exploration. The companies were arranged to consult with the local communities. In August 2017, Oil and Petroleum Law in Myanmar recovered the domestic effects, focusing on environmental conservation, the guarantee of energy security in Myanmar, to acquire the tax for the country, permitting Licenses. Therefore, it may prevent the life of local communities and negative impacts on domestic politics on Myanmar, the receiving country.

Conclusion

The cooperation between Myanmar and China in oil and gas sector enhanced closer economic relations between two countries. Myanmar, the tenth rank natural gas reserve in the world, exchanged natural resources for revenues and political support through resource diplomacy. Therefore, Myanmar had used energy resources as opportunities for its national interests in Myanmar-China ties. Their cooperation in oil and gas sector became more active within its isolation from international community. China also used the Myanmar-China pipelines for strengthening its relations with Myanmar. It also created beneficial economic relations and connectivity between China and Myanmar, and Southeast Asia. Therefore, it seemed to be a winwin situation in cooperation between the two countries.

However, according to the MoU between the two countries, China has received not only 80% of the total profits but also its energy strategy. The strategy of China's influence with BRI plans has included especially oil and gas pipelines from Myanmar. In reality, although Myanmar had only used the two oil and gas pipelines as opportunities in making relations with its neighbour since 1988, it had experienced some negative issues for local communities, especially farmers and fishermen. Consequently, Myanmar-China oil and gas cooperation could be assumed the win-lose form for Myanmar. Therefore, Myanmar's changing reforms in democratic transition period made hint for its reconsideration in investment in energy sector. Moreover, it outlined policies to improve relations with US and international community and to enhance its image at ASEAN while it tried to lessen over-dependence on China.

Along with political and economic reforms, pressure on Chinese economic interests on the ground is strengthened by the increasing active coopertaion from the West in Myanmar. However, as the security of China's energy investment, such as oil and gas pipelines is China's priority, China launched massive public relations campaigns inside Myanmar that aimed at improving its image and relations with the local communities. Nevertheless, Chinese government has strived to maintain the strategic partnership with Myanmar. Under the NLD government, plans are underway to amend the existing laws, bylaws and regulations on oil and gas sector in the country. The energy policy in 2015 aimed to prevent negative impacts on Myanmar local community. In August 2017, Oil and Petroleum Law in Myanmar improved domestic effects, focusing on environmental conservation, the guarantee of energy security in Myanmar, to acquire the tax for country, permitting Licenses. Therefore, it is likely to prevent the life of local communities and negative impacts on Myanmar's domestic stability.

However, as the Myanmar's oil and gas projects have already been constructed and operated, the best way forward would be for Myanmar and foreign companies to restore the confiscated lands to the farmers. It is likely to prove that they are sharing the benefits of the projects with the affected communities by launching local development programs. In this regard, the priority areas that the project should focus on are, firstly, restoring the damaged farmlands through technical assistance, including provision of mechanized equipment, until the farmers regain the same agricultural yields they enjoyed before the project started. Moreover, the project should contribute to livelihood assistance to the affected farmers and launch a conservation plan for environment issues due to the pipeline construction. Nevertheless, Myanmar's long-term interests lie in maintaining an even-handed approach towards all countries, including China.

References

- Aung Yanma, (2017), Local Fishermen faced difficulties at the Maday Deep Sea Port, Daily Eleven Journal, Yangon.
- Aye Sapay Phyu, (2013), Myanmar-China pipeline construction under scrutiny, Yangon.
- (2008), Burma's Hydropower, Oil and Gas and Mining Sectors, Earth right International, Mandalay.
- (2016), China-International Analysis, US Energy Information Administration (EIA).
- (2012), Energy Spotlight, Implications for Myanmar over the lucrative A-1 concession how much for Daewoo?, Yangon.
- (2017), "FDI reaches over US\$ 920 million", The Global New Light of Myanmar, Vol. IV, No.60, Ministry Information, Yangon.
- Fang, Amanda, (2015), Myanmar's foreign Policy towards China 1988-2012: To what extent has Myanmar's foreign policy towards China been determined by global geopolitical concerns in the period 1988-2012, Volume 8 Issue 1
- (2013), Pacific Studies Ritsumeikan Asia Pacific University, MA Thesis.
- Hilton, Isabel, (2013), China in Myanmar: implications for the future, Norwegian Peace Building Resource Centre.
- Hong, Zhao, (2011), *China-Myanmar Energy Cooperation and Its Regional Implications*, *Journal of Current Southeast Asian Affairs*, German, published by GIGA
- (2016), *In Search of Social Justice Along the Myanmar-China Oil and Gas Pipeline*, Myanmar China Pipeline Watch Committee, Mandalay, Myanmar.
- Kudo, Toshohiro, (2006) *Myanmar's Economic Relations with China: Can China Support the Myanmar Economy?*, JETRO, the Institute of Developing Economics, No.66.
- Kyaw Nyein, U, (2013), Country Report for Myanmar, Analysis on Energy Saving Potential on East Asia, ERIA Research Project Report.
- Kyaw Zeya, U, (2017), Deputy Director (Law), PSC Management Committee Office, Planning Department, Naypyitaw, *Interview by Author*.
- (2017), MOGE, MOEE, Naypyitaw.
- (2017), MOGE, MOEE, Naypyitaw, Myanmar.
- (2007), MOGE inks oil, gas exploration deal with CNPC", The New Light of Myanmar, Yangon.
- (2012), MOGE Financing Table, MOGE, MOE, Naypyitaw.
- National Development Plan, http://202.130-245.40/ch-11ankaung/16duiwaikaifong/nulu.htw
- Oil and Petroleum Law in Myanmar, Department of offshore oil and gas, MOGE, MOEE, Naypyitaw
- Nay Aung, U, (2017). Manager, Department of offshore oil and gas, MOGE, MOEE, Naypyitaw, Interview by Author.
- Panwar & Namrat, (2009), *a, India and China competing over Myanmar Energy*, Leicester, Working draft for BISA Conference 2009.

- **Potential gas reserves discovered at deep-sea offshore block AD-7**, The Global New Light of Myanmar, Vol 11, No.297.
- Sherpa, Tenzing Chope, (2016), *Importance of Myanmar in China's Strategic Interest: A case study on Sino-Myanmar oil and gas pipelines*, Gangtok, Sikkim University.
- (2017), Shwe Export Gas Sales (Financial Year Wise), MOGE, MOEE, Naypyitaw.
- Smitt, Matthew and Naing Htoo, (2006), Gas politics: Shwe Gas Development in Burma, Watershed Vol.11, No.2.
- Steinberg, David and Hongwei, Fan, (2012), *Modern China-Myanmar Relations, a dilemma of mutual dependence*, Thailand, published by Nordic Institute of Asian Studies.
- Sun Yun, (2012), *China' strategic Misjudgments on Myanmar, in: Journal of Current Southeast Asian Affairs*, GIGA German Institute of Global and Asia Studies, Institute of Asian Studies and Hamburg University Press.
- (2011), *The Burma-China Pipelines: Human Rights Violations*, *Applicable Law, and Revenue Secrecy*, Earth rights Internationals.
- (2013), The Weekly Eleven Journals, Vol. VIII, No. XV, 16 January, Yangon, Eleven Media Group
- (2012), The New Light of Myanmar, News and Periodical Enterprise, Yangon, Vol. VII, No.41.
- (2017), The Global New Light of Myanmar, News and Periodical Enterprise, Yangon, Vol. IV, No.203.
- Dickinson, Steve, (2012), China's Energy Challenge, The energy foundation annual report, China.
- (2017), Yearly Approved Amount of Foreign Investment (By Sector), Foreign Investment Commission, Yangon.
- Zaw Aung , U, 2013, Overview of Oil and Gas Sector in Myanmar, Energy Planning Department, Naypyi taw.