doi: 10.14456/jms.2018.22

The Electricity Generating Authority of Thailand and Hydropower Development Projects in Laos: Energy Security and Foreign Policy[1]

Suppawit Kaewkhunok

Centre of International Relations and Area Studies, School of International Studies
Jawaharlal Nehru University, India
Email: suppawit.kaew@gmail.com

Received: April 17, 2018
Accepted: July 11, 2018

Abstract

Laos, which in many respects is Thailand's most important neighbor, contributes greatly to its electricity security. More than 50 percent of the electricity in northeastern Thailand comes from Laos. Thus, electricity has become the main product which impacts the relationship between Thailand and Laos. Interestingly, Thailand's Electricity Generating Authority (EGAT) plays a very important role in linking and sustaining this relationship. This article aims to analyze Thailand's energy security and foreign policy with respect to Laos through the action of Thai state enterprises by focusing EGAT's role as an important intermediary in these policies. The study used qualitative research to find answers through primary and secondary resources. It found that the hydroelectric power in Laos is very important for Thailand, especially in the Northeast region. EGAT has played a significant role in establishing a framework for electricity policy relations between Thailand and Laos.This actor has never been mentioned before as a key player in foreign policy. This article recommends that Thailand still needs to reduce its dependence on a foreign power by strengthening its domestic electricity security, especially in the Northeast.

Keywords: Electricity Generating Authority of Thailand, energy security, hydroelectricity, state enterprise, Thai-Lao relations

[1] This article was written before the collapse of the dam being constructed in Attepeu in July, 2018, which tragically caused great loss of lives, displacement of people, and destruction of homes and farmland. This event will have an impact on the electricity planning of Thailand, but will not affect the other hydropower projects which have already been constructed in Laos. In my opinion, the Lao government may be concerned about the construction process but the environmental and human issues may still not be their main focus.

บทคัดย่อ

ประเทศลาวเป็นประเทศเพื่อนบ้านที่สำคัญของประเทศไทย ซึ่งมีส่วนส่งเสริมความมั่นคงด้านพลังงานของไทย ปัจจุบันพลังงานไฟฟ้ามากกว่าร้อยละ 50 ในภาคอีสานนำเข้าจากลาว ฉะนั้นพลังไฟฟ้าจึงถือเป็นสินค้าสำคัญที่ส่งผลกระทบต่อภาพรวมความสัมพันธ์ของทั้งไทยและลาว เป็นที่น่าสนใจว่าการไฟฟ้าฝ่ายผลิตแห่งประเทศไทย (กฟผ.) เป็นตัวแสดงที่มีบทบาทสำคัญในการเชื่อมโยงและรักษาเสถียรภาพของความสัมพันธ์ของทั้งสองประเทศ ความสัมพันธ์ในลักษณะนี้นำมาซึ่งความสนใจที่ต้องการศึกษาวิเคราะห์ความมั่นคงทางด้านพลังงานและนโยบายต่างประเทศของประเทศไทยต่อประเทศลาวผ่านบทบาทของรัฐวิสาหกิจของไทย โดยมุ่งศึกษาถึงบทบาทของการไฟฟ้าฝ่ายผลิตแห่งประเทศไทยในฐานะตัวกลางสำคัญในการปฏิบัติใช้นโยบายด้านไฟฟ้าและนโยบายต่างประเทศระหว่างไทยกับลาว งานชิ้นนี้ใช้การวิจัยเชิงคุณภาพเพื่อหาคำตอบจากแหล่งข้อมูลปฐมภูมิและทุติยภูมิ ผลการศึกษาพบว่า การพัฒนาไฟฟ้าพลังงานน้ำในลาวมีความสำคัญอย่างมากต่อไทย โดยเฉพาะอย่างยิ่งภาคตะวันออกเฉียงเหนือ ยิ่งไปกว่านั้น บทบาทของ กฟผ. มีส่วนสำคัญอย่างมากต่อการกำหนดกรอบความสัมพันธ์ทางด้านนโยบายไฟฟ้าระหว่างไทยและลาว ซึ่งโดยทั่วไปรัฐวิสาหกิจมักไม่ถูกระบุหรือให้ความสำคัญในฐานะตัวแสดงทางด้านนโยบายต่างประเทศ บทความนี้ให้ข้อเสนอแนะว่า ประเทศไทยจำเป็นต้องลดการพึ่งพิงทางด้านพลังงานจากต่างประเทศเพื่อเสริมสร้างความมั่นคงทางด้านไฟฟ้าของตนเอง

คำสำคัญ การไฟฟ้าฝ่ายผลิตแห่งประเทศไทย ความมั่นคงด้านพลังงาน ไฟฟ้าพลังงานน้ำ รัฐวิสาหกิจ ความสัมพันธ์ไทย-ลาว

Introduction

Laos, officially named the Lao People's Democratic Republic, has been a member of the Association of South East Asian Nations or ASEAN since July 1997. It is the only landlocked country among ASEAN members. Geographically, Lao is located in mainland Southeast Asia, surrounded by China, Cambodia, Myanmar, Thailand, and Vietnam. Politically, it is under the regime of a single party, which is the Lao People's Revolutionary Party (LPRP). Citizens are still restricted from accessing resources such as land, forests, etc. National policy and

development planning are controlled and supervised only by the central government, which has the power to make decisions on administration and planning budgetary policies. Laos, therefore, is a country with a centralized governing body using a top-down policy direction. Moreover, the centralized political system of the centrally-run LPRP promotes non-fragmented development in many areas of the country and generates corruption among politicians. Economically, Laos is ranked as one of the least developed countries in the world because of its limited development in education, transportation, electricity, and healthcare. As of 2012, more than 23.2 percent of the seven million people in Laos still lived below the national poverty line, while 59.4 percent of workers earned less than $ 1.9 per day (Asian Development Bank, 2017). At the same time, seven million people in Laos continued to experience poverty, unemployment, increased living costs, and poor education (Asian Development Bank, 2017). Political, economic, and social factors play an important role in setting the government's development framework so that the country can rise from its status as an underdeveloped nation.

Interestingly, Laos is rich in natural resources, especially water and coal. There are more than a thousand rivers flowing into Laos (International Rivers, 2010). Lao is also rich in many mineral resources in the country that have not been fully utilized, such as gold, iron, copper, and coal. With geographical constraints and national development issues, the Lao government has made great strides in designing the country's development framework, which seeks to capitalize on its richest resources, such as water and coal. The abundance of water resources and mountainous terrain allows for the production and export of hydroelectric power, which is expected to generate 26,000 megawatts of electricity. One of the major strategies of Laos's development plan is to position itself as "the battery of ASEAN" by 2020 (Water Environment Partnership in Asia, 2016). However, Laos still has limited financial resources to implement this plan. Consequently, the government decided to open bilateral, multilateral, and international investments to develop domestic hydropower projects, which would be a new source of income

for the country. China is the main investor, with investment worth more than $5,395 billion, followed by Thailand with a total investment of more than $4,489 billion (Lowe, 2016). Therefore, the major investors in Laos are neighboring countries that can receive direct benefits from this investment, especially from the development of hydroelectric power projects. Thailand is a major player in the development of hydroelectric power projects in Laos and was the number one investor until 2015.

The relationship between Thailand and Laos suffered a great deal during the Cold War as Thailand supported the Lao monarchy, which was opposed by the Communist Party in Laos. However, history changed when Laos decided to open the country for foreign investment and cooperate with Thailand to develop hydroelectric power. An important actor that represents the Thai government and has the main role in negotiating for investment permission, planning and importing electricity from Laos is the Electricity Generating Authority of Thailand (EGAT), which is a state enterprise. Because EGAT controls electricity generation planning, all private power producers must sell electricity to this state enterprise. In addition, investment in electricity generation within Thailand or outside of Thailand which involves the import of electricity must be authorized by EGAT. It can be said that the power sector of Thailand is regulated by only one organization, which commands great clout in terms of independence, planning, investment, management, and the controlling of electricity prices in Thailand. At the same time, the organization is also capable of negotiating investment in electricity generation in neighboring countries, such as the purchase of natural gas from Myanmar and Malaysia, and investment in hydroelectricity generation in Laos. Therefore, its board of directors approves the investment as a result of the assessment of the negotiation report and the investment discussion; these considerations must be forwarded to the government for approval and most of them can be implemented immediately. The role of EGAT is central to Thailand's energy security and it has the power to negotiate with neighboring countries on electricity issues.

Thus, the major question of this study concerns the role of EGAT in the process of Thai foreign policy toward Laos. The study takes energy security as a framework to focus on the participation of EGAT in the negotiation of foreign investment to import electricity into Thailand from 1994 to 2016. The potential and extensive scope of this organization to invest in power generation, particularly in Lao PDR, raises the question of the extent to which EGAT is involved in designing and defining Thai foreign policy towards Laos. Moreover, this study also analyzes the results of the development of EGAT's hydroelectric power in Lao PDR, which concerns the energy security of Thailand and the economic development of Laos. The study uses qualitative research to find the answers based on both primary and secondary resources such as government talks, statements, and government documents. It also includes a review of policy documents and strategies of both the Lao government and EGAT. In addition, research, textbooks, articles, and books related to Thai-Lao relations are analyzed alongside the above primary data. After collecting both primary and secondary data, the study uses both to analyze and answer a set of questions on the role of the state enterprise in Thai foreign policy with respect to Laos from the study of hydroelectric power development projects.

Thai-Lao Relations in the Free World: Economics and Investment

Relations between Thailand and Laos as modern states were officially established in 1953 after Laos gained independence from France. The Thai government supported the royalist party, while the Vietnamese government backed the Communist Party. This situation led to a political war in Laos. Cooperation between the two countries officially took off after the end of the Cold War. Earlier the Royal Thai Government had supported the royalist group during the civil war. When the Communist Party was able to defeat the monarchy in 1973, it did not develop friendly relations with Thailand's royal government but chose to focus on neighboring countries such as Vietnam.

The relations between Thailand and Laos were reviewed during the tenure of Thai Prime Minister Chatichai Choonhavan, who came to power in 1988, and aimed to transform the conflict zone in Indo-China into an international trading market. The Thai government, which changed its stance in regard to Laos, welcomed the official visit of the Lao president in 1989; while Princess Maha Chakri Sirindhorn and Crown Prince Maha Vajiralongkorn were welcomed to Laos on visits in 1990 and 1992, respectively. Relations between Thailand and Laos reached a peak when King Rama IX and Queen Sirikit visited Laos officially to discuss common economic development in 1994. Since then, Thailand and Laos have continually exchanged high-level visits to sustain their close relationship. In addition to political issues, human factors are another important issue that cannot be neglected because close social and people-to-people connections promote a better relationship between Thailand and Laos (Gunn, 2008: 62-64). The Thai and Lao languages belong to the same language family, so people can understand each other even if there are differences in specific words and accents. The relationship between the people of the two countries is strong because the people of northeastern Thailand, which borders Laos, share the cultures and traditions, although political relations were problematic as Thai government was in alliance with the USA. The people of the two countries also have kinship relations, especially in the border area along the Mekong River and they cross the border at all times without having to go through official government channels.

Another important factor that is the focus of this study is the economic relationship between the two countries. Thailand is Laos's biggest trading partner, while Laos is Thailand's No. 20 trading partner, with a combined trade value of over $ 5.71 billion in 2015, up 4.87 percent from 2014. Thailand had a trade surplus over Laos by $ 2.77 billion (Department of Asian Affairs, 2016). Thailand's main exports to Laos are oil, consumer goods, automobiles and components, and steel. Thailand has been importing electricity, metal ores, and timber from Laos and has invested heavily in the development of hydropower there. The energy sector is considered the most important economic sector in

which Thailand has invested in Laos, as many Thai construction contractors have been able to win concessions for construction, especially for hydropower plants. In addition, the management of many hydropower plants in Laos is under a joint venture between the private sector that was supported by EGAT and Électricité du Laos (EDL). Currently, two-thirds of the electricity produced in Laos is exported to neighboring countries, which accounts for significant revenue that can be used in reducing poverty and promoting national development. Electricity exported to foreign countries accounted for 30 percent of total exports of the country. The hydroelectric power sector is an important project that has been negotiated to increase Thai investment in Laos. Thailand and Laos signed an MoU concerning electrical energy in 1993 (Pholsena, 2005: 173-175). Laos pledged to export 1,500 megawatts of electricity to Thailand. The MoU has been constantly amended, especially by the Thai government, which has increased the demand for electricity. The cooperation between Thailand and Lao PDR is expected to expand to 10,000 megawatts.

The main turning point in the relations between Thailand and Laos occurred near the end of the Cold War when the Thai government changed its foreign policy toward the communist country. As mentioned above, it opened the border and transformed the battlefield into an international trade area (Jönsson, 2009: 200-201). At the same time, the Lao government also adopted an open economic policy to foreign investment. This shift in economic policy brought about stronger political and economic ties between the two countries as neighbors. The private sector and state enterprise (EGAT) in Thailand are investing more in Laos, particularly in the hydroelectric power sector, by which Thailand and Laos jointly work to generate revenue for Laos and satisfy Thailand's energy demand. There are six projects that deliver electricity to EGAT with a total capacity of 3,578 megawatts until 2015. However, Thailand's electricity consumption has been steadily increasing due to the rapid economic development of industry and the expansion of urbanization. As a result, domestic electricity production is not sufficient to meet domestic demand. In this regard, the Thai government, led by

EGAT, has made great strides in negotiating with the Lao government to expand its hydroelectric power generation capacity in Laos (Kyophilavong, Record, Takamatsu, Nghardsaysone, and Sayvaya, 2016: 369-370). It is expected that Thailand will import up to 10,000 megawatts of electricity in the future. The cooperation in the development of hydroelectric power projects in Laos is a symbol of the close relationship between the two countries, as are the more than six existing Friendship Bridge projects that reflect the engagements of the two countries. Thus, the hydroelectricity development project in Laos is more than just economic cooperation; it reflects Thai foreign policy toward Laos and vice versa.

Hydroelectric Power Investment and the Electricity Generating Authority of Thailand: Diplomatic and Economic Relations

Thailand was the first country to re-establish relations with Laos after the end of the Cold War; the Thai-Lao cultural links and diplomatic relations between the modern states were established in 1953. The two countries agreed to establish a joint committee to resolve the problems and increase cooperation in 1991 after their relationship became normalized. In 2007, Thailand and Laos signed an MoU on cooperation for the development of power in the Lao PDR because Laos has the potential to develop electric energy as hydroelectricity (Rehbein, 2007: 60-65). While Thailand is developing an economy, Thailand's energy demand has increased. The Thai government decided to extend the investment and purchase hydroelectricity from Laos (Department of East Asian Affairs, 2016). One of the agencies that play a key role in overseeing, managing, monopolizing trading, and investing in Thailand's electricity is EGAT, which is under the supervision of the Ministry of Energy and is responsible for electricity generation, electricity grid management and supervision of electricity trade within Thailand. The organization was formally established in 1969 as a major player in Thailand's power generation, with a capacity of 15,548 megawatts from 45 hydropower plans across the country. It also influences the design

of the country's electricity spending framework and advises the minister of energy on the development of and investment in electricity both inside and outside the country.

Therefore, the decision to buy and sell electricity within Thailand, as well as outside the country, whether from the private sector or public sector, must be approved by the organization. EGAT's role is not only that of policy implementation; it is also a relatively autonomous agency that design electricity planning and policy according to Electricity Generating Authority of Thailand Act 1968. The status of this organization is different from state enterprises, because, in addition to regulating electricity in the country, it has the power to issue policies to support the organization (Middleton, Garcia, and Foran, 2009: 30-31). Therefore, the import of energy from Laos, as well as the support for Laos's hydroelectric power projects, is due to the support of this organization in planning for the country's energy security. In this regard, the support of investment and purchase of electricity from Laos does not mean that EGAT is a direct investor, but a member of the private sector in Thailand, which is a joint venture with Laos to produce electricity for sale to Thailand (Magee and Kelley, 2009: 128-129). EGAT acts as the main buyer and invests in electricity transmission from Laos to Thailand. Therefore, this organization is not a direct investor in the development of hydroelectric power projects in Laos, but a sponsor and promoter of the Thai private sector in a joint venture with Laos.

Laos invited the Thai private sector to invest more in hydroelectricity projects and another forms of production of electricity, such as coal and wind (Chapman, 2009: 96-98). Laos also asked Thailand to extend the amount of electricity to be acquired under the MoU signed recently by the two parties to up to 10,000 MW from 7,000 MW at present (The Energy News Center, 2016). The energy talks between the Thai and Lao governments cannot be carried out solely by the government; there is support from EGAT, which evaluates the value and feasibility of investing in electricity in Laos (Middleton, Garcia, and Foran, 2009: 24-27).

Most of the electricity imported from Laos is for the needs of consumers in the North and the Northeast of Thailand, according to the potential of existing power transmission lines. Although EGAT is striving to improve the capacity of its power transmission lines to integrate with other regions, it has found distance is a problem. The cost of electricity transmission from Laos to the Central and Eastern Regions which have high electricity consumption is still a problem, while the demand for electricity in the North and Northeast has not grown much. From 2016 onwards, Thailand's investment in and development of hydropower in Laos was relatively small, although Laos still has the potential to generate electricity. This phenomenon is the result of EGAT's policy change to find new resources that can produce electricity within the country at a cheaper price because reliance on electricity from Laos has had an impact on the country's energy security (Aumklang and Juengtrakul, 2014: 3-4). In addition, the main reason for the change is the imbalance in the supply of domestic electricity. The South is the region with the highest electricity crisis because there is no sufficient electricity generating plant. This situation has resulted in EGAT's attention to developing electricity in the southern region to increase supply to meet the demand in the area.

Although Lao PDR has the potential to generate electricity, it cannot be delivered to southern Thailand because of the high costs involved in investing in power lines. The change in EGAT's energy policy in promoting hydroelectric development in Lao PDR has a significant impact on Thai foreign policy towards the Lao government, especially the investment sector. Overall, the role of state-owned enterprises such as EGAT has been significant in determining the level of cooperation between the Thai and Lao governments in investment and implementation of projects related to hydropower plants. Therefore, EGAT's policy and decision making on the issue of electricity is an important signal for foreign policy between Thailand and Laos, as the operations in this sector are controlled and managed under EGAT. Although Thailand's foreign policy toward Laos remains largely unchanged in politics, change can be seen in the Thai economy and

investment in Laos. For example, Thailand's investment position in Laos dropped to third place in 2015 after electricity in the North and the Northeast of Thailand was able to meet consumer demand (Aumklang and Juengtrakul, 2014: 4). EGAT is one of the key actors involved in the design of Thailand's foreign economic policy with Laos (Aumklang and Juengtrakul, 2014: 4). Therefore, it is not possible to ignore the analysis of EGAT as an actor in understanding the Thai-Lao relationship.

Laos and the Energy Security of Thailand: How is Hydropower in Laos Important to the Thai Economy?

Thailand has had continued economic development since the end of World War II. Its economic growth was remarkable in the 1980s and 1990s, when it was called the fifth tiger of Asia, along with East Asian nations. The policy of turning the battlefield into a trading ground in the late 1980s has resulted in continued growth of Thai and neighboring economies in the global economy. The expansion of this economy has led to a rapid expansion of urban areas, resulting in an increase in the country's demand for electric power, and domestic production has begun to suffer. When Laos opened for foreign investment, the Thai government led by EGAT decided to negotiate with the Lao government, seeking investment channels to boost the growth of the Lao economy and enhance Thailand's energy security. The two parties signed the MoU for the Development of Electric Power in 1993. The Theun-Hinboun Hydropower Plant, which is operated by a joint venture between the Thai company and Electricité du Laos (EDL), began supplying electricity to Thailand through EGAT's acquisition for the first time in 1998. Since then, Thailand has expanded its investments and imports from Laos in a variety of projects, such as the Houay Ho Hydropower Project in 1999, the NamTheun2 Hydropower Project in 2010, the NamNgum2 Hydropower Project in 2012, Theun-Hinboun extension in 2012, and Hongsa project in 2015. There are also a number of projects under construction to export electricity to Thailand, such as Xayabouly, Sepian-Xenamnoy, and NamNgiep, which are expected to deliver

electricity in 2019 (Department of Energy Business, Ministry of Energy and Mines, 2014).

Thai electricity capacity is at a level which can effectively meet the electricity demand from various sources such as EGAT, the private sector, and import from neighboring countries (Laos and Malaysia). Currently, Thailand's power generation capacity is 42,299.25 megawatts (Electricity Generating Authority of Thailand, 2018). Thailand imported electricity production from abroad, which amounted to 3,877.60 megawatts, of which 300 megawatts from Malaysia and 3,577.60 megawatts from Laos. The above figures show that 92.3 percent of imported electricity is from Lao PDR, which is supported by investments from the Thai private sector with the support of EGAT. Therefore, the electricity from Lao is 8.5 percent of Thailand's total capacity. This percentage reflects the importance of electricity from Laos for Thailand's economic development. Meeting this gap in the proportion of domestic production will take a considerable amount of time. Hydropower plants in Laos are playing a major role in supporting the growing demand for electricity in Thailand, because of the expansion of the economy and urban areas, especially in the Northeast.

Electricity consumption throughout Thailand and in the Northeast is likely to increase in line with economic growth, while the construction or development of new power plants in the country is quite limited. Thailand, therefore, needs to rely on neighboring countries' power generation, especially that of Laos, to play a greater role in responding to domestic energy security. Although the proportion of electricity imported from Laos may not be very high compared to the overall electricity of Thailand, it is not easy for EGAT to increase its capacity to replace this number. Moreover, information on electricity consumption and regional capacity reflects the importance of importing electricity from Laos, which contributes significantly to changes in the northeastern region of Thailand. Currently, the demand for electricity in the Northeast is growing due to the growth of big cities such as Udon Thani, Khon Kaen, Nakhon Ratchasima, and Ubon Ratchathani. As a result, even the potential domestic electricity generation is insufficient

for this increased electricity demand. Moreover, the capacity of renewable energy is still questionable. Therefore, the Thai government has entered into an agreement with Laos to import electricity to fill the domestic electricity consumption gap. As a result, the electricity used in the Northeast comes from two major parts: domestic and imported from Laos. Prior to 2010, electricity was mainly produced within Thailand, most of which was purchased from the central and northern regions due to the inadequate electricity capacity of the Northeast. However, the growing economic situation in the northern and central parts of the country has made the purchase of electricity from both regions no longer possible. For example, the electricity demand in Chiang Mai province rose from 1,738 MWh in 2006 to 2,946 MWh in 2015. This situation occurred across the Northern region because of industrial investment and expansion of tourism. Thus, the role of electricity imported from Laos has become more important because the hydroelectric power plant which Thailand has invested in can supply electricity to the power transmission system in the Northeast. When we analyze the import figures from Lao PDR, we find that the current import of electricity from Laos to northeastern Thailand is 68 percent of the total electricity consumption of that region (Aumklang and Juengtrakul, 2014: 2-3). In simple terms, all of the electricity imported from Lao PDR to Thailand was used in the Northeast to meet the needs of the people, government offices and businesses in the region. The remaining 28 percent was produced in the Northeast and four percent was imported from the north and central regions.

Thus, it can be seen that most of the electricity used in northeastern Thailand is imported from Laos. While electricity from Laos helps to increase the supply of electricity in the region, this situation creates problems for energy security. Although Thailand has a trade surplus to Laos, it still depends on electricity from Laos. As a result, the disparity between the two countries must be strengthened. If Laos decides not to deliver electricity to Thailand, it would result in an economic disaster for the people in northeastern Thailand. In summary, the role of hydroelectric power plants in Lao PDR contributes greatly

to Thailand's electricity security, especially in the northeastern part of the country. Thailand's reliance on electricity is a reflection of the importance of Laos in driving Thailand's domestic economy as electricity is a key factor in driving economic progress. At the same time, it is necessary to try to produce electricity to meet this import gap in order to reduce the dependence on foreign powers. The reliance on electricity from Laos has had a significant impact on foreign policy bargaining between Thailand and Laos. It is difficult for Thailand to take a firm stand towards Laos on other issues because a flawed diplomatic decision could lead to an electricity cut off from Laos.

Conclusion

The Thai-Lao relationship is a long-standing one, characterized by kinship relations and a shared language. Moreover, Thailand and Laos have strong ethnic, religious, and cultural ties, which are key to furthering relations in other sectors such as politics and the economy. Although Thailand and Laos experienced difficult political and economic relations during the Cold War as they supported different political concepts, the strong familial links of the two countries flanking the Mekong River continue to exist. The kinship between the peoples of the two countries has become a means of connecting other sectors for progress and contributes greatly to the dialogue to review the relationship in the post-Cold War period. Thailand was the first country to invest in Laos before the official opening of foreign investment there. The hydroelectric power sector is an important economic sector in which Thailand is especially interested because Laos has a very high potential for hydropower generation, which is a major resource in the country. Thailand's negotiation and promotion of electricity investments in Laos is the responsibility of EGAT, which has the power to issue policies, approve private power purchases, and promote investment. EGAT is an extremely powerful state-owned enterprise which monopolizes power generation in Thailand; all electricity trading in the country must operate through this organization, even if it is a foreign power purchase. EGAT's

role in promoting investment and foreign policy in the area of electricity in Thailand has been substantial and intervenes in the direction of cooperation between the two countries.

However, the data show that Thailand's electricity security is heavily dependent on Laos, especially in the northeastern region, where more than half of the region's electricity is imported from Laos. The hydroelectric power plants of Lao PDR play a very important role in building electricity security in Thailand. Cooperation in the development of hydroelectric power projects benefits both Thailand and Laos as equal neighbors. In the end, the Thai government still needs to accelerate the strengthening of domestic energy security through new generation of electricity within the country to reduce dependence on electricity from neighboring countries such as Laos. Even if the relationship between Thailand and Laos has been consistently ongoing, we cannot deny that the nature of political relations can change at any time. Over-reliance on electricity from Laos in the Northeast has resulted in less bargaining power in Thailand and a potential risk to Thailand's electricity security.

References

Chapman, D. W. (2009). Education reforms and capacity development in higher education. In Y. Hirosato and Y. Kitamura (Eds.). **The political economy of educational reforms and capacity development in Southeast Asia: Cases of Cambodia, Laos and Vietnam.** (pp. 91-112). Berlin: Springer Science.

Gunn, G. C. (2008). Laos in 2007: Regional integration and international fallout. **Asian Survey, 48**(1), 62-68.

Jönsson, K. (2009). Laos in 2008: Hydropower and flooding (or business as usual). **Asian Survey, 49**(1), 200-205.

Kyophilavong, P., Record, R., Takamatsu, S., Nghardsaysone, K., and Sayvaya, I. (2016). Effects of AFTA on poverty: Evidence from Laos. **Journal of Economic Integration, 31**(2), 353-376.

Magee, D. and Kelley, S. (2009). Damming the Salween river. In F. Molle, T. Foran, and M. Käkönen (Eds.), **Contested waterscapes in the Mekong region: Hydropower, livelihoods and governance.** (pp. 115-142). London: Earthscan.

Middleton, C., Garcia, J., and Foran, T. (2009). Old and new hydropower players in the Mekong region: Agendas and strategies. In F. Molle, T. Foran, and M. Käkönen (Eds.), **Contested waterscapes in the Mekong region: Hydropower, livelihoods and governance.** (pp. 23-54). London: Earthscan.

Pholsena, V. (2005). Laos in 2004: Towards subregional integration: 10 years on. **Southeast Asian Affairs**, 173-188.

Rehbein, B. (2007). **Globalization, culture and society in Laos**. Oxon: Routledge.

Websites

Asian Development Bank. (2017). **Poverty in Lao PDR**. Retrieved February 26, 2018, from Asian Development Bank: https://www.adb.org/countries/lao-pdr/poverty.

Aumklang, K. and Juengtrakul, M. (2014). **The northeast with dependence on electricity from neighboring countries**. Retrieved March 17, 2018, from Bank of Thailand: https://www.bot.or.th/Thai/MonetaryPolicy/NorthEastern/DocLib_Research/07-NE_EnergyThai-AEC.pdf.

Department of Energy Business, Ministry of Energy and Mines. (2014). **Projects under construction**. Retrieved March 16, 2018, from http://www.poweringprogress.org/ power-projects/construction.

Department of East Asian Affairs, Ministry of Foreign Affairs, Kingdom of Thailand. (2016). **Overview Thai-Lao relationship**. Retrieved March 01, 2018, from http://www.thaisavannakhet.com/savannakhet/th/knowledge/relationships/.

Electricity Generating Authority of Thailand. (2018, February 26). **Generating capacity**. Retrieved March 16, 2018, from https://www.egat.co.th/index.php?option=com_ content&view=article&id=80&Itemid=116.

Energy News Center. (2016). **English news: Laos seeks wind power purchase agreement from Thailand**. Retrieved March 15, 2018, from http://energynewscenter.com /index.php/news/detail/252.

International rivers. (2010). **Existing and planned Lao hydropower projects – September 2010**. Retrieved March 04, 2018, from https://www.internationalrivers.org/ sites/default/files/attached-files/laohydro2010_sept_final.pdf.

Lowe, S. (2016). **Out of obscurity**. Retrieved March 01, 2018, from Asia Time: http://www.atimes.com/article/china-top-foreign-investor-behind-laos-fast-growth/.

Water Environment Partnership in Asia. (2016). **Lao PDR river water**. Retrieved March 02, 2018, from http://www.w.epa-db.net/policies/state/laos/river.htm.