

Print ISSN: 1738-3110 / Online ISSN 2093-7717
http://dx.doi.org/10.15722/jds.14.8.201608.5

Investment Analysis in the Hydroelectric Power Sector of the Lao People's Democratic Republic (Lao PDR)

Phouthakanna Nantharath*, Eun-Goo Kang**, Hee-Joong Hwang***

Received: July 1, 2016. Revised: July 7, 2016. Accepted: August 15, 2016.

Abstract

Purpose – With its considerable water resources, Lao People's Democratic Republic, hereafter Lao PDR, is considered to become the “battery” of the Southeast Asia region in the next 20 years. This paper explores the investment opportunity in the hydroelectricity development project in the Lao PDR.

Research design, data, and methodology – Three significant investment factors including cultural factor, political factors, and economic factors are being literally analyzed. In fulfilling the purpose of this analysis, Num Theun 2 Power Company or NTPC, a current largest hydropower project in the country, is selected for an example of a mega investment project model in the country.

Results - NTPC's investment plan, budgets, and current revenue and rate of return are briefly discussed throughout the paper. In addition, this paper also briefly compares and contrasts of the investment in the Lao PDR and investment in its neighboring Singapore who is considered one of the leading developed economies in the region.

Conclusions - A recommendation is being proposed on the last section of this paper in the areas that Lao PDR may consider adopting in order to make its investment environment becomes more attractive to foreign investors.

Keywords: Lao PDR, Southeast Asia, Developing Countries, Investment, Hydroelectric Power Project.

JEL Classifications: G30, G31, G32, G35.

1. Country's Background

Lao People's Democratic Republic, hereafter Lao PDR, is a land-linked country situated in the Southeast Asia region and bordering with five neighboring nations including Thailand to the West, Cambodia to the South, Vietnam to the East, Myanmar to the Northwest, and China to the North. Based on the statistic of 2014, Lao PDR has a total population of 6.8 million and more than 63 percent of its

population still lives in the rural area and perform mainly agricultural farming (UNDP, 2014). Being a mountainous country with an area of 236,800 squared-kilometers, Lao PDR is rich with mineral resources with discovered and exploited of sapphire, coal, gypsum, zinc, silver, gold, and copper. According to the United Nation, as of 2010, there were approximately 170 happening mining plans in the country where over 70 percent of its territory has not been yet explored. According to The World Bank (2015), natural resources, specifically, forestry, agricultural land, hydropower, and minerals, comprise more than half of Lao PDR's total wealth, while, reported in 2013, the hydropower and mining sectors combined generated about one third of economic growth in the country.

Currently, Num Theun 2 Power Company or NTPC is the largest hydropower project of the Lao PDR. The project was being funded with \$1.2 billion budget with an expected return of more than \$2.0 billion in revenue over a 25-year period (Fung, Garcia-Herrero, & Ng, 2011). As reported by the International Rivers in 2010, Lao PDR has a total of 79

* First Author, Doctoral student in Business Administration program, Saint Mary's University of Minnesota, 2500 Park Ave Minneapolis, MN, US. E-mail: pxnant14@smumn.edu

** Co-Author, Doctoral student in Business Administration program, Saint Mary's University of Minnesota, 2500 Park Ave Minneapolis, MN, US. E-mail: exkang14@smumn.edu

*** Corresponding Author, Professor, Department of International Trade, Korea National Open University, 86 (Dongsoong-dong), Daehak-ro, Jongro-gu, Seoul, South Korea.
Tel: +82-2-3668- 4683, E-mail: ygodson@knou.ac.kr

hydropower projects throughout the countries, which includes 10 projects in operating stage, 4 under construction, 23 on planning, and 42 on a feasibility stage (Phannalangsi, 2011). Considering its unexploited natural resources and hydropower project development potential, Lao PDR is one of the most competitive countries for the foreign investment in the Southeast Asia region.

2. Num Theun 2 Power Company

NTPC is international financial institutions and a hydroelectric power company of a joint venture between the Lao government and private shareholders and backed by commercial lenders and international financial institutions including the World Bank and the Asian Development Bank (Nam Theun 2 Power Co, 2015). The Lao government holds 25 % of the company while the Electricite de France and EGCO Group of Thailand hold 40 % and 35% of the project respectively. The company was granted a permission to construct and operate the hydroelectric project on the Num Theun River in 2005 and will run the project for the first 25 years. The project will then become a 100 percent state owned afterward.

Num Theun 2 is the largest foreign investment in hydropower project in Lao PDR to date (Nam Theun 2 Power Co, 2015). The project construction began in 2005 and started generating electricity in 2009. Over 90% of generated electricity of 1,070 MW was exported to the neighboring Thailand and the rest is being distributed for local consumption. The project is described by the Lao Government as “an important part of the country’s advance framework” that “is likely to provide the first real possibility for Laos to gradually reduce its dependence on Official Development Assistance”(Nam Theun 2 Power Co, 2015)

Nam Theun 2 is an excellent example of successful hydroelectric power Project model to study for a possible business investment in the Lao PDR. Being a developing country that is rich in natural resources and rivers makes Lao PDR an interesting country to examine in this study. To further understand the Num Theun 2’s business model and its success, we will study the following business factors that Lao PDR has to offer.

3. Cultural Factors

3.1. Organizational Culture

Being a joint venture company, Nam Theun 2 practices a multicultural organizational structure. Lao PDR’s government has long friendship history with both Thailand and France. Lao PDR and Thailand have similar spoken and written languages. The similarity between Lao and Thai northeastern dialect offers a direct communication without the need for an

interpreter (Teokul, Alsua, & Mujtaba, 2013). This cultural factor allows an effective communication between the local employees and managerial experts from Thai shareholders. On the other hands, Lao PDR used to be one of the French colonies and French is a second language besides English being used locally and officially in Lao PDR. Part of Lao PDR’s working system and organizational culture are being adopted from French colonialization. The close relationship and similarity of cultures of the three joint ventures of the Num Theun 2 have created very friendly organizational and working environment throughout the company.

3.2. Workforce Diversity

Majority of the Lao PDR’s population compiles of age 0-40 years old where the group of age between 15-30 is the largest group of its population (ICPD, 2014) and more than 80% of the population resides in rural areas. Nam Theun 2 project offers a great employment opportunity for the young rural Laotian, especially those that live nearby the project sites and neighboring provinces.

The Lao government proposed the “Lao Preference” in terms of the employees being hired throughout the construction phase and operating period of the Nam Theun 2 hydroelectric power project. As a result, the Nam Theun 2’s employees consist of at least 70 percent ethnically Laotian (Électricité de France, 2014). This has limited the racial diversity issues in terms of languages and cultural difference among the Nam Theun 2 employees. However, the government of Lao PDR and the Num Theun 2 value the gender diversity, gender equity, and equal employment opportunity between male and female. Hence, female engineers accounted considerable numbers of vacancies at Nam Theun 2.

3.3. Workforce Regulation and Policy

The working system of the Lao PDR is similar to those of other developed and neighboring developing countries. The government adopted the 8 hours working shift/day, Monday to Friday. However, public offices and most majorities of private businesses and enterprises are normally closed for an hour during their lunchtime from noon to one o’clock. Most of the country’s holidays fall on the international holidays and a three days Lao New Year in mid April. The numbers of holidays in Laos, on average, is between 10-15 days/years. Government employees and private employees are protected with health insurance and normally offered 15 vacation days per years. Due to a lack of healthcare system, international employees in Laos are morally receiving their healthcare services in neighboring Thailand. On site and field engineers at Num Theun 2 hydroelectric project are working 20 days straight and having 10 days off per month.

4. Political Factors

Politically, Lao PDR is a single-party state and has been considered a socialist state since 1975. Having been under a single party leadership, Lao PDR is able to maintain its political stability and achieving consistently high economic growth rates throughout the last three decades. Since 1975, the government of Laos has implemented an 8-five year socio-economic development plan and aiming to graduate from the list of LDCs by the end of 2020. Currently, Lao PDR is at its 7th socio-economic development plan, from 2010-2015, and the country has achieved significant economic development. Its GDP per capita has been growing at average of 8 percent where the Human Development Index has also shown some significant progress.

The advantage of being a single party state has allowed Lao PDR to be able to practice and implement a continuous economic development plan without an interruption. The government has been able to make quick and efficient decision when it comes to passing the foreign policies and investment laws. Since 2009, Lao PDR has passed numbers of laws aiming at promoting the foreign investment. The Law on Investment Promotion passed in 2009 has allowed 100 percent foreign ownership enterprises and over 30% of tax incentive (US Department of State, 2012). Some major achievements from implement the Law on Investment Promotion in 2009 include a certificate of WTO membership in 2010 and the establishment of more than 10 specific and special economic zones throughout the countries.

5. Economic Factor

The considerable number of rivers throughout Lao PDR and its mountainous location of enables the construction of dams to generate a great deal of electricity comparing to neighboring Thailand, Cambodia and Vietnam (Teowkul, Alsua, & Mujtaba, 2009). The GDP of Lao PDR has been growing on average of 8 percent over the last two decades (UNDP, 2014). Out of 6.5 million populations, over 3 million are actively participating in the workforce and over 2 million of these workforces are younger than 30 years of age.

Both natural and human resources of the Lao PDR offer a potential economic growth and investment. The cost of labor in Lao PDR is relative lower comparing to neighboring countries. In addition, being a land-linked country, neighboring to fast and advanced economic growth countries like China, Vietnam, and Thailand would also allow Lao PDR to become a significant logistic hub in the region. Currently, there are two main railways being constructed intended to connect the South China to the lower Indochina peninsula countries including Cambodia, Malaysia, and Singapore. These railways will open the new trading lines

between the East and West corridors (connecting China Sea to the East to Indian Ocean to the West) of the Indochina peninsula countries, which includes Vietnam, Laos, Thailand, and Myanmar.

6. Compare and Contrast with Singapore

Both Lao PDR and Singapore are members of the Association of Southeast Asian Nations or ASEAN. Singapore has a total land area of 718.3-squared kilometer and a total population of approximately 6 million. In comparison, Singapore is approximately 329 times smaller than Lao PDR in land area with a slightly smaller number of populations. Economically, Singapore is the third highest country in terms of GDP per capita in the world or about 26 times of that of Lao PDR. In contrast, in terms of the potential for investment, Singapore surpasses the Lao PDR in the following aspects:

While the Lao PDR's economy heavily relies on agriculture and natural resource exploitation, Singapore's economy is one of the high standard industrializations in the world. Its investment policy focuses on international competitiveness and chooses the world as its exporting market (Widyatmoko, 2000). The exporting strategy of Singapore focuses on low cost at a higher quality with FDI regulation. Foreign investors are considered the main source capital and driving force of its economic growth. The government of Singapore implemented policies that granted foreign investors citizenships and hold the same rights and ownership as local ones (Widyatmoko, 2000). Unlike Singapore's, the investment promotion laws of the Lao PDR still prohibits certain rights and access for foreign investors such as citizenship and land ownership.

Singapore situates in a geographically advantage region that has high potential for rapid economic grow and stable investment. It is one of the world's top transportation hubs for sea and cargo. Singapore's container ports are the busiest in the world (ASEAN-China Centre, 2014). Financially, Singapore has the strongest financial base in the region where its financial institutions are highly acknowledged by and well connected with the international monetary policy. In terms of human development, Singapore' labor force is well-educated and highly English proficient.

7. Summary

Although Lao PDR is regarded as one of the poorest countries, its economy has been growing over 8% per year over the past two decades. Its rich of natural resources and considerable numbers of rivers and water sources are potentials for mega economic development projects and green energy production such as mining industries and

hydropower projects. Its land-locked geographical location is being converted to a land-linked and a center hub for upper Southeast Asian nations and south provincial areas of China. Besides being able to utilize its unexploited natural resources and geographical advantage, implementing the investment promotion laws and international business standard is allowing the Lao PDR to become a more competitive foreign investment destination in the Southeast Asian region.

8. Conclusion and Recommendations

Taking into consideration of cultural factor, political factor, and economic factor, Lao PDR is a profitable destination for foreign investment with high investment incentives being offered by its government. Although, Lao PDR, politically, is a single-party and socialist state, its economic system is more favorable toward the capitalistic and market-oriented. The political stability will assure long-term investments and mega projects. With the rich of natural and water resources, Lao PDR offers potential and profitable investment opportunities in mining and hydroelectric power projects. However, there are some recommendations that the Lao

PDR may consider for improvement in order to make the country becomes more attractive to foreign investments.

1. Lao PDR needs to improve its logistic infrastructure in order reduce the transportation and logistics costs for industrial and agricultural manufacturing.
2. Being a land-linked country, Lao PDR needs to improve and establish more border connection and trade points with its neighboring countries to allow easier entries and transportations.
3. One of the biggest issues of LCDs and Lao PDR is a corruption. Therefore, the government of the Lao PDR needs to implement more effective anti-corruption laws and establish more international standard financial institutions and practices.
4. Lao PDR needs to invest more on its human development. This includes improvement of schooling and healthcare systems. Providing more technical colleges and universities would help converting the raw labor forces the Lao PDR to young and skillful ones. A better healthcare system would also reduce the fertility rate, increase child surviving rate, and healthier workforce

References

- ASEAN China Centre (2014). *Singapore's advantages*. Retrieved June 22, 2015, from http://www.asean-china-center.org/english/2010-05/28/c_13321298.htm
- Électricité de France (2014). *Water, Sanitation and Hygiene for Employees – The Nam Theun II Experience*. World Business Council for Sustainable Development, Retrieved May 23, 2015, from <http://www.wbcsd.org/washatworkplace.aspx>
- Fung, K. C., Garcia-Herrero, A., & Ng, F. (2011). *Foreign Direct Investment in Cross-Border Infrastructure Projects*. ADBI Working Paper 274. Tokyo: Asian Development Bank Institute. Retrieved June 22, 2015, from <http://www.adbi.org/workingpaper/2011/04/01/4499.fdi.crossborder.infrastructure.proj/>
- ICPD (2014). *Lao People's Democratic Republic: Country Implementation Profile*. Retrieved May 27, 2015, from http://icpdbeyond2014.org/documents/download.php?f=FINAL_Lao%20People's%20Democratic%20Republic.pdf.
- Nam Theun 2 Power Co (2015). *Background*. Retrieved June 22, 2015, from <http://www.namtheun2.com/about-nt2/background.html>
- Phannalangi, N. (2011). Impact of Global Financial Crisis on Economic Growth in Lao PDR. *International Journal of Business and Social Science*, 2(22), 236- 242.
- Teowkul, Alsua, & Mujtaba, K. (2009). Factors influencing power generation investment in Laos. *Asian Journal on Energy and Environment*, 10(4), 1513-4121.
- The World Bank (2015). *Lao PDR Overview*. Retrieved June 6, 2015, from <http://www.worldbank.org/en/country/laol/overview>
- U.S. Department of State (2012). *2012 Investment Climate Statement - Laos*. Retrieved May 23, 2015, from <http://www.state.gov/e/eb/rls/othr/ics/2012/191180.htm>
- UNDP (2014). *Realizing the MDGs in Lao PDR*. Consolidated Programme of Support to MPI for the Achievement of the Valuable Goals of the 7th NSEDP 2011-15, Retrieved May 22, 2015, from http://www.la.undp.org/content/dam/laopdr/docs/Project Documents/PovertyReduction/UNDP_LA_Realizing MDGs_PROJECT DOC.pdf
- Widyatmoko, B.(2000). *Investment Policies in Singapore and Vietnam*. Retrieved June 15, 2015, from http://www.academia.edu/1790888/Investment_Policies_in_Singapore_and_Vietnam