

Article by Assoc. Prof. Dr. Satapon Keovimol

BSIE. (University of Oklahoma) MSIE. (New Jersey Institute of Technology) Dr.Ing. (Universite De Nice) France
Faculty of Engineering. King Mongkut's Institute of Technology North Bangkok
Advisor of the Special Committee for Studying Thai-Canal Project of the Senate
Advisor of the Standing Committee on Justice and Human Rights of the Senate

Thailand's Potential in the Investment and in Operating the Thai Canal Project

The Thai Canal project is a high cost investment project, about 5-6 times the budget of the Suwanaphoom Airport, which is about 120,000 - 150,000 Million Baht. The budget for the construction of the Thai Canal is about 700,000 – 1,000,000 Million Baht.

Thailand has set the national annual budget for the year 2005 at 1,200,000 Million Baht. Thailand's GDP is about 6,000,000 Million Baht per year and increasing.

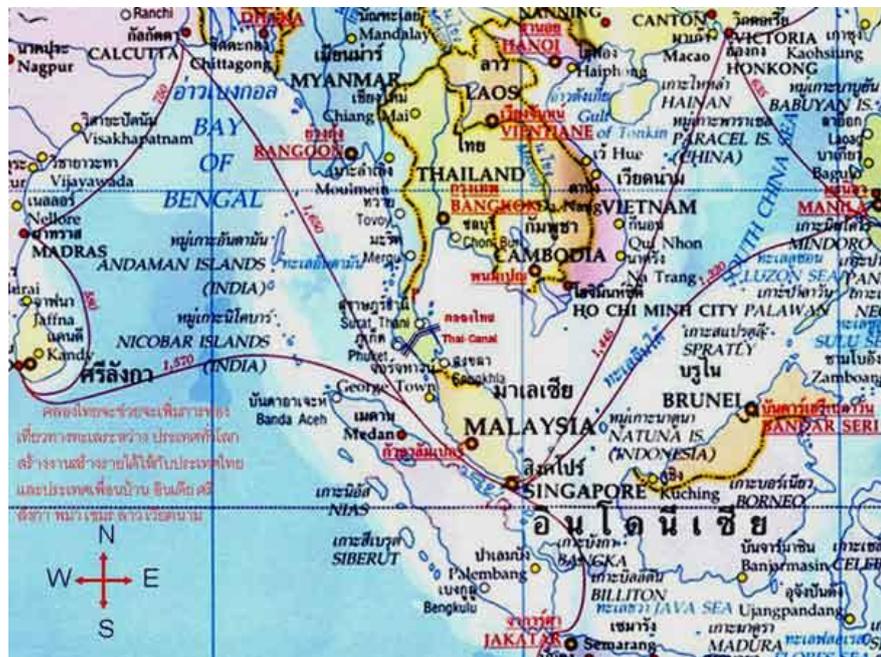
In the year 2004, the total savings in all the national banks and the banking system is about 700,000 – 800,000 Million Baht. These savings are left over and the banks have not been able to give loans or invest in anything, which causes side-effects which burdens the national economy to pay the interest continually. The value of the Baht decreases as a result and burdens the society indirectly, buying goods at a higher price. At the present, (the deposit interest rate at 1%) people to have 10 Million Baht in savings receive less than 10,000 Baht a month in interests and it will be that way as long as those savings lie still in the bank.

With this amount of money, it would be easy for the government to loan it for the construction cost of the Thai Canal which returning loan interest higher than keeping the money in the banks without having to issue foreign loans to lose the interest. The government can issue bonds as in 2002, which received over 400,000 Million Baht and used to resolve the rehabilitation funds. The government can issue 100,000 Million Baht bonds every year to invest in the Thai Canal that creates more jobs, like moving money from one pocket to another. In less than 8 years, Thailand will have the Thai Canal that will create income for the country, drawing foreign currency into the country directly and indirectly for a long time. The government can reap the income and taxes and return them to the public in less than 10 years. All the benefits circulate in the country.

From the rough financial estimates that I have stated, I think that Thailand has the potential to invest in the Thai Canal Project without aid from foreign funds.

Even though Thailand can invest in the project wholly, I think that foreign cooperation is necessary. Thailand shouldn't be the only investor; there are a number of

countries ready to invest in the Thai Canal Project. Thailand isn't the only country that will benefit from the project but every country in the world; especially neighboring countries both rich and poor will receive financial benefits from the Thai Canal project. But Thailand will have to be the major shareholder in the project.



Countries in South Asia will benefit from the Thai Canal Project

From my opportunities in meeting high-ranking officials from various countries, I've found that when they know that Thailand is continuing the Thai Canal Project, they want a part in the project. The main reason is because those countries will benefit from the project also.

I believe that it is Thailand's fortune to have the present constitution. From the time that has past, we see that the guidelines from the new constitution are leading the country in a better direction. From the general public knowledge, the people's constitution forces politicians to develop both in thought and in practice. Any party becoming part of the government, Prime Minister Taksin Shinawatra's government or any other government following will have stability in the parliament to govern the country smoothly, importantly the constitution creates rules that enable the people or organizations to have freedom in inspecting the government.

The Thai Canal Project is a large and important project for Thailand. We need a strong government, a strong parliament and continuity to finish this project.

From the past, everyone can see that changing Ministers will create havoc in every party in the country. If a Minister loses their title, it creates even more havoc. The Prime Minister gets attacked both in and out of the parliament. If we still use the old constitution,

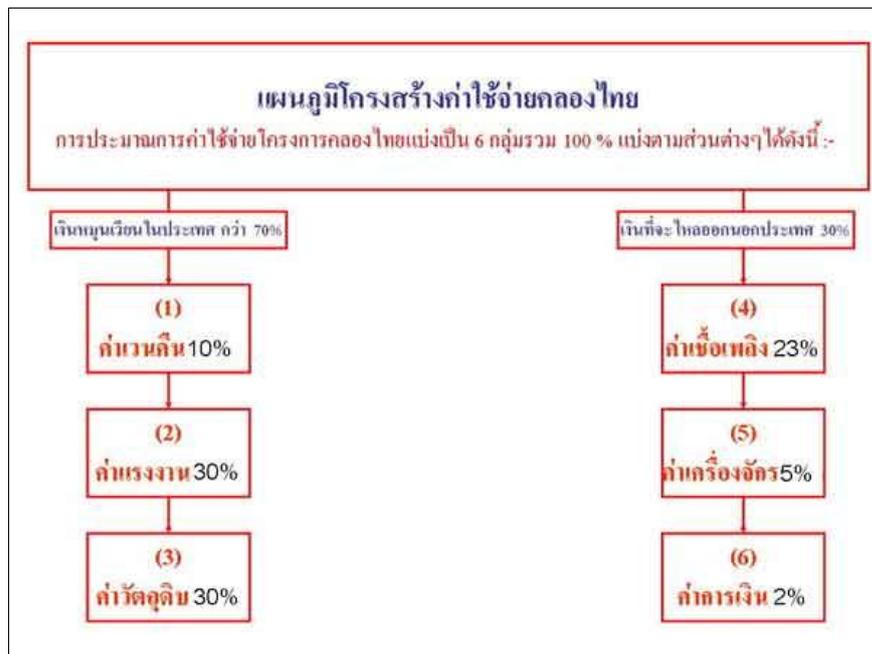
no matter how good Prime Minister Taksin is won't help anything. From what I recall, no government has been governing for a whole term.

The Thai Canal will be reality when the government has a strong leader in the parliament and is really working for the country. Influence or Benefits from some countries using money or benefits taking advantage of Thailand for a long time will finally be out of the country.

To make the feasibility of the project easier to understand we consider

1. The money flow structure of the Thai Canal Project
2. The construction cost estimate for the Thai Canal Project
3. The Thai Canal construction duration estimate
4. The ability of the Thai Canal
5. Thailand's engineering ability in constructing the Thai Canal

1. The money flow structure of the Thai Canal Project



The construction cost structure of the Thai Canal

From the structure the total cost for the project will be not less than 70% of the money flowing in the country and the other 30% will be foreign currency for fuel and machinery.

The materials used in the project construction can be produced in Thailand. Steel, cement or even dynamite can all be produced in Thailand.

The labor forces in Thailand are also ready in every level. The labor forces that have to do construction work in foreign countries can return to work in their homeland

along with the domestic workers. They will bring income to their families and help build our country.

In the issue of expropriation costs, some of the people in the canal line do not want monetary returns but want benefits in ownership of the canal, done by distributing shares of the Thai Canal, creating long-term benefits for their families.

ประมาณการค่าใช้จ่ายโครงการคลองไทย 1 ล้าน ล้านบาท รวม 100% แบ่งตามส่วนต่างๆ ได้ดังนี้ :-	
หมวดค่าใช้จ่ายที่หมุนเวียนอยู่ ภายในประเทศ 70% (จัดสรรว่าล้านบาท)	หมวดค่าใช้จ่ายที่เงินไหลออก นอกประเทศ 30% (ตามแผนว่าล้านบาท)
1. ค่าเวนคืน 10% (หนึ่งแสนล้านบาท)	1. ค่าน้ำมันเชื้อเพลิง 23% (สองแสนสามหมื่นล้านบาท)
2. ค่าแรงงาน 30% (สามแสนล้านบาท)	2. ค่าเครื่องจักร 5% (ห้าหมื่นล้านบาท)
3. ค่าวัสดุ 30% (สามแสนล้านบาท)	3. ค่าการเงิน 2% (สองหมื่นล้านบาท)

Construction Cost Estimates for the Thai Canal

If the Thai Canal Project uses a total of 1,000,000 Million Baht and takes 5 – 10 years to complete, that means that Thailand will use about 100,000 Million Baht a year.

While the canal creates jobs and helps money to flow in the country during the construction, when it is complete foreign ships will pass through, foreign currency will flow into the country, 50,000 fishing ships will save fuel by not having to refuel at other countries. The fishing ships will be able to conduct more fishing trips without having their ships confiscated with trespassing charges. The Thai navy can protect, defend and investigate illegal operations in both coasts of Thailand.

2. The construction cost estimate for the Thai Canal Project

The monetary funds needed are estimated by using the amount of earth to dig up, which is about 4,000 Million cubic meters. If we estimate the transportation cost at 150 Baht per cubic meter, the costs in this category will be around 600,000 Million Baht. The 3 bridges and 2 tunnels to be constructed will be 50,000 Million Baht. The total cost estimate for the project is around 650,000 Million Baht.

ค่าก่อสร้าง คลองไทย 650,000 ล้านบาท

โดยสมมุติฐาน

เป็นคลองคู่ขนาน ความยาว 130 กิโลเมตร ตีจาก ระดับน้ำทะเล 40 เมตร บวกกับความสูงของ
 ผิวดินเฉลี่ย ถึง ระดับน้ำทะเลอีก 10 เมตร (รวมขุดลึก 50 เมตร) โดยให้ส่วนความกว้างที่
 ระดับน้ำทะเลกว้าง 350 เมตร ส่วนความกว้างของตอม่อที่ระดับ ตี 40 เมตร กว้าง 250 เมตร
 จำนวนดินที่ต้องขุดทั้งหมดประมาณ 4,000 ล้าน ลูกบาศก์เมตร
 (ให้ค่าขนย้ายดิน เฉลี่ยลูกบาศก์เมตรละ 150 บาท)
 (รวมค่าขุดคลอง 600,000 แสน ล้านบาท)

**ค่าก่อสร้าง สะพาน 3 สะพานหลัก และ 2 อุโมงค์ หน่วย ละ 10,000
 ล้านบาท (รวม 50,000 ล้านบาท)**

The Construction Cost Estimates for the Thai Canal

If any minerals and resources are found in the dig, will be gathered, managed and
 used for the country's funds.



Image 1 the canal type of the Thai Canal

A massive amount of earth will be used to pave up both sides of the canal, in a 4-kilometer perimeter at both sides. The perimeters will have to be paved 7-10 meters higher than the sea level to accommodate an industrial town, both hi-tech industries and source industries. We still do not know if the amount of earth dug up will be left over or not. There will have to be a geographical and hydrographical survey first. If there is enough left over earth, it can be used as an island to be a cargo terminal to transport goods in the sea like in Japan or Korea which will be a huge source of income.

3. The Thai Canal construction duration estimate

If the canal line dig for the Thai Canal is route 9A, passing Trang, Patalung, Nakorn Sri Tammarat and Songkla which is about 120-130 kilometers on the ground. The part below

sea level will have to be deep enough to let ships from both coasts pass. A precise hydrographic survey must be done. The Andaman coast is clearly deeper than the Thai coast.

As for the construction duration, if there is good management, separating and distributing jobs into small 1-kilometer projects, each project will be around 5,000 million bath. The Thai Canal will be finished in 5 years.



Image 2 image of 9A canal route

4. The ability of the Thai Canal

From the amount of ships passing through the southern part of the country, we find that there are 520,000 ships passing every year or about 1,300-1,400 ships everyday. There are 600-700 ships passing through the Malaga Strait everyday, these are small ships not deeper than 20 meters. The rest of the ships are large ships that have to detour through the Sunda and Rombok Straits losing not less than 4-5 days. These ships (8,000 TEU) pay more than 100 Million Baht everyday in insurance and fuel. We can charge the canal fee at the ship's one-day cost; the ships will save 3-4 days from the total cost. We can also charge the canal fee as a percent in each ships cost savings. The shipping companies can only benefit and be safer from pirates.

In theory, the Thai Canal has a capability to allow 400-600 ships to pass every day. Practically, 200-300 ships everyday would be more than enough.



Image 3 The Thai Canal daily capacity

5. Thailand's engineering ability in constructing the Thai Canal

In the past 10 years, Thailand had some large projects in Bangkok e.g. the sky train, the subway, large overpasses. These projects all use a higher technology than would be needed to construct the Thai Canal. An example is the subway construction in Bangkok, which is deeper than the Thai Canal. The Thai Canal would only be 40 meters deeper than the sea level if there were an earthquake the risk of the subway dig would be much higher. The subway dig was conducted in Bangkok, in an area with high density of population; from the aerial survey the 9A route of the Thai Canal has a low-density population. The construction can be done fully, all 24 hours.

The engineering problems of the construction do not exceed the capabilities of Thai construction companies. We have the capability in both engineering and technological aspects. The Thai Canal project is a high budget project, but a simple technology project. The key to the project is good management to operate following the plans, more than engineering problems. If the Thai Canal project is a joint project with foreign countries that have experience in large projects such as China, America, Japan, France. The Thai Canal will be completed as planned, as a canal of peace and happiness. An important canal that humans helped each other to build, it would be an honor to Thai citizens. Thai children will think of everyone that helped the Thai Canal project to be real, and made the Thai Canal a global monument that is spoken of worldwide.

