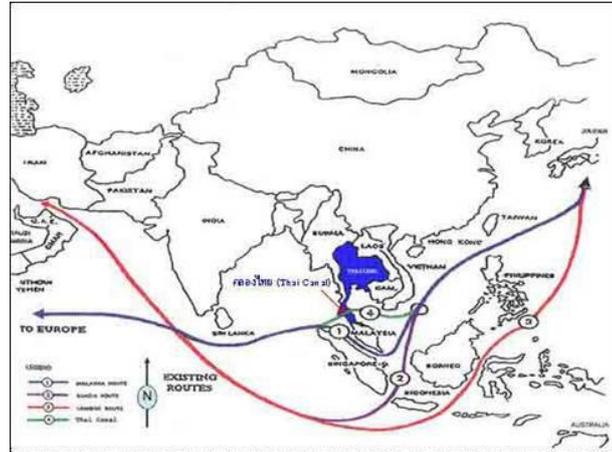




Thai Canal Frequently Asked Questions

1) Will there be enough ships passing to make the Thai Canal profit?



Ans. In the present there are around 520,000 ships passing through the south of Thailand every year, which is about 1,300 – 1,400 ships passing everyday. There are 600 ships docked at Singapore everyday. Every ship will have to pass through one of the three main routes which are the Strait of Malacca, mostly the ships that don't pass through the strait of malaca are large ships and more than 20 meters deep. These ships will have to pass through the Strait of Sunda or the Strait of Lombok. These ships will be the main customers of the Thai Canal because the Thai Canal will support large ships and will let large ships pass through. The Thai Canal will be able to service around 300-400 ships every day so there will be several hundred ships that will have to pass through the old route.

2) Will the Thai Canal dig separate Thailand?



Ans. This question is often asked every time there is some movement about the Thai Canal project. When considered with reason we'll see that the Thai Canal project has an objective to develop our countries economy to prosperity not to create problems in Thailand. A Canal, through a country, dividing the country in to two parts with bridges connecting each part won't cause separation in the country. The country separating by this cause is very unlikely, consider Thailand closely, Thailand has oceans between many islands. The province of Phuket is an island, and Samui Island in Surat Thanee province and many other islands. Islands without bridges connecting them to the main land is still a part of Thailand. question is often asked every time there is some movement about the Thai Canal project. When considered with reason we'll see that the Thai Canal project has an objective to develop our countries economy to prosperity not to create problems in Thailand. **We can see examples from Malaysia;** Malaysia has a part that is attached to Thailand with another part attached to Indonesia (Sabah, Sarawak, Borneo, Sibiu, Kuching). In the world map, the two parts of Malaysia are several hundred kilometers apart separated by the ocean. But Malaysia is still developing normally. This are not uneducated people and reasonable, they won't be misled and have the country lose a good opportunity. More than that, The Thai Canal will solve the problems in the three southernmost provinces of Thailand softly and create a lasting peace because the Thai Canal will bring prosperity to all of southern Thailand. The Thai Canal will create jobs for local people and will benefit the whole country. The two sides of the Thai Canal will become a large city with not less than 3-4 Million Thais moving in to work in the area. These people will be a natural guard for Thailand not losing to any power or authority.

- 3) Will International ships use the Thai Canal ? Because the ships can pass the Malaca strait for free

Ans. Saving distance, saving time and being safe from pirates are the strong points of the Thai Canal. If we compare a ship passing the Thai Canal with the straits of Malaca route (passing Singapore), the Thai Canal route will save 1,200-1,400 km. or 1-3 days. When compared with the straits of Sunda route, the Thai Canal route will save 2,500-3,000 km. or 4-5 days. When compared with the straits of Lombok route, the Thai Canal route will save 3,000-3,500 km. or 5-7 days. (The international regulation for a ship's velocity when passing a canal is below 12 nautical miles per hour or about 20 km. per hour)

Ships with a hundred ton capacity has an operating cost not less than 20 million baht every day so ships will also save in operating costs. The most important factor is ships will be

safe from pirates in the Malaca straits. Ships from Europe or the Middle East can pass to countries such as China, Japan, and Korea directly. All these benefits are sufficient to draw ships to use the Thai Canal.

- 4) Will the water level difference between both coasts cause the canal to have water gates?

Ans. The water level difference of both sides is less than 1 meter. If we use the 9A route for the canal dig, starting from the Thai coast in the east at Amphur Hua Sai in Nakorn Sri Tamarat province to the Andaman coast in the west at Amphur Si Kao in Patalung province, the water level difference when compared with the canal length of 120 kilometers is insignificant. The need for water gates aren't necessary, we can compare with the Chao Praya river in the rainy season that is flowing to the Thai Coast, the water difference between the Pier at Klong Toey and at Ayudthaya (with a distance of 100 Kilometers) is sometimes more than 1 meter, ships can pass through normally. (The Suez Canal that is 190 Kilometers long and has a water difference of about 2 meters does not need a water gate) Naturally, the tide goes up and down everyday, the tide goes up and down 4 times a day. The tide will change before a ship passes.

- 5) Is the Thai Canal project possible?



Ans. From the senator's seminar (Trang Hotel, Wisutkasat Rd. held by the Southern union, a special presentation of the Thai Canal Project Special Commission, 4 October 2003), Dr. Satapon Keovimol said that the interest of the senator's special commission in the Thai Canal project is significant to the project, because the senators don't have the authority to exploit from this project, making the project's consideration fair. The outcome will be the result of the studies, if most of the senators are in favor of the Thai Canal project and pass the project as a resolution of the senators. The Thai Canal will be up to the government, so how can we influence 200 senators to be in favor of the project? I believe that if the senators pass a

resolution in favor of this project, this topic would be interesting for Thais. But at the present there isn't any clarity in this project, several countries are interested in the project and want the Thai Canal to be completed but those countries don't see any effort from Thailand. These countries lack the confidence in investing because there aren't any of the national institutes that can be clear and decide if the Thai Canal project should be completed or not. The project is like a drifting dream, lacking influence. But if the senators pass the resolution, it would mean a lot and will be a condition to the government to complete, or the government will have to answer to the public the reason not to dig the canal.

The main issue at the moment is how to help the sub committee of the Thai Canal feasibility study of the senators, with Kamnuan Chalotham as the chairman, Lt. Gen. Opas Ratanaburi as the vice-chairman and Surajai as the vice-chairman pass this project through the senators. If this project is completed it would mean more than building 100 temples and the benefits from the project can be seen in this life not the next life. The benefits will pass to every Thai. I am from Saraburi province, I do not have any land there but the benefits will pass on to my children too.

6) What are the benefits that Thailand will receive from the Thai Canal?

Ans. The benefits that Thai will receive are separated in 2 parts. The first part of the benefits are benefits that will come from the potential and economical opportunities the Thai Canal will create for Thailand. The second part of the benefits are the direct profits from the canal which can be summarized as following: -



7) National Stability issues?



Ans. Stability especially nautical stability of Thailand at the present can be seen that the entrance to the Thai Coast is a closed sea. If we need to move ships from the Thai Coast to provinces like Saton, Trang, Panggha, Krabi, Phuket, Ranong in the Andaman coast, the Thai ships will have to pass through national waters of several countries such as Cambodia, Vietnam, Malaysia, Singapore and Indonesia. When the Thai Canal is complete, Thai ships will be able to travel to any country around the world freely, especially Thai fishing ships that will save fuel. The Thai Royal Navy can also be swift and free to operate in training or in war. We can move ships to either side without causing suspicion from neighboring countries because any movement in mobilizing will be out of neighboring countries knowing. The Thai Canal will make Thailand free in moving ships in and out not like the present where Thai ships are always in observation by our neighbors; they can always study our movements.

8) Environmental Issues?



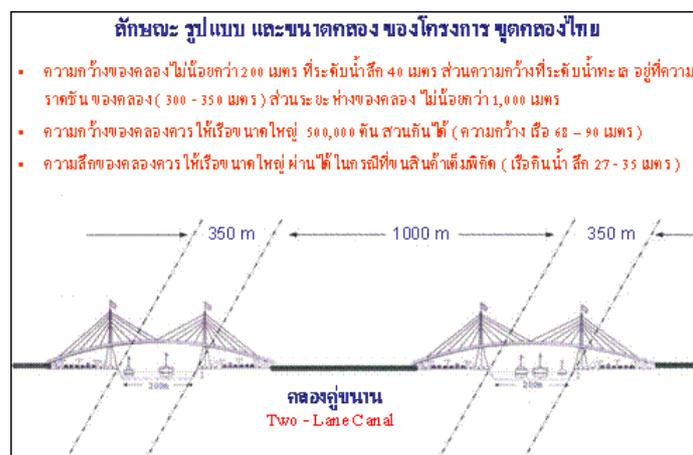
Ans. Environmental issues that can be caused by ships from foreign countries using our canal can be controlled better in the canal. Resolving the environmental problems are things we must consider along with the Thai Canal project development. We must create a perfect city plan. There are two ways that we can plan, Plan 1: we have to plan the city plan preventing

problems that we can avoid, such as utilities, transportation, roads, water resources, power resources, waste disposal. These elements can be planned for. Plan 2: planning the city dynamically, along with change. We can study this kind of development in major cities around the world.

The biological impacts of both coasts are minimal compared to the Panama Canal. We can see from maps that the Panama Canal is the narrowest part between North America and South America, dividing the Pacific Ocean with the Atlantic Ocean, which is more than 40,000 kilometers apart, making aquatic animals of both sides very different. It is unlikely that fish from both sides will swim to meet each other. The Smithsonian Museum of America for studying aquatic animals there also.

But for the Thai canal, the natural elements are more favorable than the Panama Canal. The water level difference between both coasts are less than 1 meter, the Thai canal would not need a water gate like the Panama Canal. More than that, if we look at the map, we can see that the Thai Canal is not far from the Malay Peninsula (less than 1,000 kilometers) seawater naturally flows to both coasts. There is no difference or little difference in the species of the aquatic animals. Fish can mate naturally but the salt level of both coasts will be different especially in the rainy season. The seawater that flows in and out of the Thai Coast has 2 cycles every year. The waste at the Malay Peninsula the waste in the Thai Coast from the Chao Praya River or Bang Pakong River normally combines together, the issue that we worry about maybe a benefit us.

9) Where will we put all the earth that we dig up?



Ans. The earth that we dig up will be piled up on both sides of the canal, along all 4 kilometers. We have to pile the sides 3-5 meters higher than the sea level to support Industrial towns, both high-tech industries and base industries. We do not know if we will have any earth left until we

do a geographical survey. If we have enough earth left we have to build intermediate storage warehouses or transports like Japan or Korea, which is a huge source of revenue. **Any valuable minerals or resources found in the earth will be stored for management as funds for the government.**

10) Where will the funds for the Thai Canal project come from?

Ans. In the year 2004, the total amount of savings in the entire banks sum up to more than 700,000-800,000 million Baht. The banks are still unable to give loans or invest this money in anything, which serves no good. The country will have to face burdens created by the interest of that money, making the value of the Baht decrease with time. At the present, a person with 10 million Baht in savings will receive less than 10,000 Baht per month and will be that way as long as the savings stay still in the banks. If the Thai government can loan this money to build the Thai Canal and will be able to pay higher interest than the banks are giving now, without having to loan from foreign countries to lose in interest. The government can issue bonds, like the 2002 bonds to save the revival funds, valuing more than 400,000 million Baht. This time the government can issue 100,000 million Baht bonds every year to create jobs, the Thai Canal. It would be like moving money from the left hand to the right hand, back and forth and in less than 8 years, we would have the Thai Canal that will create large revenues for Thailand. Foreign currency will flow in to Thailand, the government will be able to save and return the loans to Thais in less than 10 years. All the benefits will be in the country.

From the brief economical overview that I have stated, I think that Thailand has the potential to invest in the Thai Canal project on our own, with out funds from foreign countries. However, I think we should let foreigners share some part of the project but Thailand must be a major part.

The funds to invest aren't any problems if the government decides to invest, Thailand will have many opportunities such as the special economical zone that we will lease land in long terms for investment, especially oil refineries. Thailand would have to invest in only a small part of it.

11) How much would the funds for constructing the Thai Canal be?

ค่าก่อสร้าง คลองไทย 650,000 ล้านบาท

โดยขมมุติฐาน

เป็นคลองคู่ขนาน ความยาว 130 กิโลเมตร ลึกจาก ระดับน้ำทะเล 40 เมตร ขวากับความสูงของ
ผิวดินเฉลี่ย ถึง ระดับน้ำ ทะเล อีก 10 เมตร (รวมขุดลึก 50 เมตร) โดยให้ส่วนความกว้างที่
ระดับน้ำทะเล กว้าง 350 เมตร ส่วน ความกว้างของช่องน้ำที่ระดับ ลึก 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)**

Ans. The construction cost for the Thai Canal project can be estimated by the main cost of the project, which is, 1.The cost of the canal dig 2.The construction cost of the bridges crossing the Thai Canal (3 bridges and 2 tunnels)

The estimates for the dig cost will be estimated by the amount of earth to dig, which is around 4,000 million cubic meters. If we estimate the handling cost for the earth at 150 Baht per cubic meter, the dig cost will be around 600,000 million Baht. The construction cost for the bridges and tunnels when combined is roughly 50,000 million Baht. So the total cost of the project is around 650,000 million Baht.

12) How long will it take to complete the project?

ประมาณระยะเวลา ก่อสร้างโครงการ 5- 10 ปี
โครงการจะเสร็จช้าหรือเร็ว อยู่ที่วิธีการบริหารจัดการ
แบ่งออกเป็น 3 ระยะ

1. ระยะ ในการดำเนินงานขุดแนวคลอง ระยะเวลา 5 ปี
2. ระยะ ในการ พัฒนาสาธารณูปโภค ถนน สะพานข้าม ระยะเวลา 3 ปี (สะพาน 3 สะพานหลัก และ 2 อุโมงค์)
3. ระยะ ในการพัฒนา พื้นที่เศรษฐกิจ สองฝั่งคลอง ระยะ เวลา 2 ปี



คลอง ไทย เส้น 9A
Thai-Canal (9A Line)

Ans. At the present, construction technology and tools have developed a lot. Digging a canal 120 kilometer long with basic technology will take around 5 years.

The heart of the canal construction is at the project management. The construction can be divided in to small projects and constructed simultaneously, like road construction that is divided to sub contractors.

Canal construction is different from dam construction because dam construction has to be focused at one place, canal construction can be divided in 1-kilometer parts. Having a company responsible for each part, we'll have 120 companies, 120 parts digging simultaneously. The canal will be complete in 5-7 years.

13) Where will the canal line be?



Ans. The position of the canal line has been suggested and changed numerous times up until now. There are 12 canal lines that are possible. For the most optimum canal line, there are factors that should be considered. Those factors are as following:-

1. The country's independency in governing the canal
2. The country's economical benefits
3. The country's military strategy
4. The environment and society
5. Engineering factors

From the senator's meetings, there have been consideration and have a summary that the canal line 9A is the most optimum, starting from the west, the Thai Coast at Amphur Hua Sai in the province of Nakorn Sri Tammarat and ending at the east, the Andaman Coast at Amphur Si Kao in the province of Pattalung

14) Will the canal dig have to use nuclear weapons?

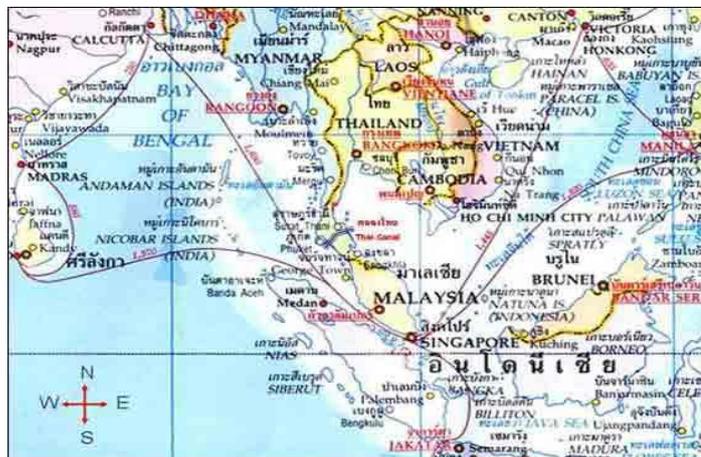


Ans. There is no reason to use nuclear weapons in digging the canal. In rock mining with explosives from mountains in distant provinces, for the use of rocks in construction, in only a couple of years, mountains have disappeared. I do not know what intentions the people who bring up the issue of having to use nuclear weapons to dig the canal are, creating negative feelings for the citizens that do not have information.

From the studies of the special committee of senators about the canal line, canal line 9A will pass mountains for 8 kilometers but mostly the route is level ground. At the present there is a canal inspired by the King at Pak Panang, 160 meters in width, 23 kilometers long and 5 meters deep. The Thai Canal line will not be far from this canal and will be parallel to it.

15) What benefits will the Thai Canal create for Thailand?

Ans. The Benefits of the Thai Canal to Thailand



1. **The Thai Canal** will be a new world economic route and will play a major part in world transportation, in economics and in world environment. The Thai Canal will be a symbol for Thailand, especially in Tourism. The Thai Canal will be one of the most beautiful man-made structures in the world. It will draw tourists from every part of the world, creating income for Thailand.

2. **The Thai Canal** will solve the problems in the 3 southernmost provinces softly, peacefully and permanently because the Thai Canal will create jobs, income, and prosperity throughout

the southern part of Thailand. 3-4 million Thai citizens will move there to start a new generation of businesses by new generation citizens. These citizens will be a force stronger than an army that will protect the Kingdom of Thailand from any influences or obstacles.

3. The Thai Canal will be like a large stream passing Thailand, connecting the two coasts of Thailand together, creating an economical route and generating a flow of money from countries around the world to Thailand directly, creating jobs, income, a tourism attraction, a business center and a source of industries. There will be a warehouse to coordinate transportation and to store cargo from around the world for sea transportation. It will be the center of banks and businesses and international sea transportation, more than that, it will be a center of Thai industries and agricultural products for export, a service center providing food, water for ships that will generate income for the country.

4. The Thai Canal will benefit national security. The Thai Canal will enable transportation from the Thai Coast if with any reason it is shutdown. In normal times the Navy can move units in and out in training. Scouting and defending illegal ships along the international border. Transferring ships and naval units between the two coasts will not cause suspicion and pressure to neighboring countries. It will also save the time and money in transportation.

5. Fishing for more than 45,000 Thai fishing boats on both coasts can transport to both coasts easily, enabling those ships to reap the fruit from the abundant waters of Thailand, especially the Andaman Coast, which the boundary goes to the international boundary of India. The Thai Canal will save fresh-water costs, fuel costs that is used for transportation between the two coasts. Thai Fishing Ships will save both money and time. The estimated cost that can be saved is not less than 50,000 Million Baht per year

6. Creating Value and Decreasing poverty. The Thai Canal route will pass rural parts of the Southern part of Thailand. The area that the Canal route will pass would benefit from the prosperity and fishing opportunities. Citizens on both sides of the Canal will benefit equally. More than that, the Thai Canal will prevent floods caused by rainfall that happens frequently in the 14 southern provinces of Thailand, by letting the rain flow into the ocean.

7. The Thai Canal will open new roles for Thailand and enable Thailand in negotiating economically, politically and military powers with major world powers such as China and America (note: Taiwan, South Korea and Singapore receives a lot of financial benefits from America). Because the Thai Canal will be a major sea travel route for the world, there will be large cargo ships, travel cruisers from all around the world using the Thai Canal. Not only will

the Thai Canal save time and fuel, it will be a safer route for sea transport. The present route suffers from pirates along the Malaca Strait. The Thai Canal will be able to let more ships pass than any other canal in the world. The layout of the Thai Canal will be a dual canal, safe from accidents. Accommodating 300 to 350 ships everyday (Panama Canal 38 ships/day, Suez Canal 87 ships/day) The Thai Canal will accommodate ships as large as 300,000-500,000 tons, which is requested by shipping companies around the world.

8. **Thailand** will be able to refine oil that is cheaper than Singapore. The Thai Canal will enable Thailand to be an upstream oil refinery, with costs cheaper than Singapore because the transportation route is shorter and large oil tankers won't have to travel to Singapore which will save costs. The ships using the Thai Canal will be main customers for the oil generating a huge amount of income from oil sales, enough for Thailand to determine the oil sales price and the illegal oil problems will not happen. At the present, Singapore sells oil to the ships that service there 56,700 tons per day. One month of Oil sales in Singapore is more than 1 year of sales in Thailand.

9. **The Thai Canal** will reduce cost in logistics of goods in Thailand both inbound and outbound. Thailand consumes more than 800,000 barrels of crude oil which is mostly imported from countries in the middle-east by sea to refineries in the country. Each oil tanker has to route around Singapore, the time it takes to get to Thailand is 5 days to Thailand and 5 days back, with a total of 10 days. If the Thai Canal is present, it would take 2 days. **(Thailand's logistics cost is now 25-30% of the gross domestic product (1,500,000 -1,800,000 Million Baht per year) compared with 20% in China, 11% in Japan, 10% in the United States and 7% in the European Union, according to a recent survey by Japan's Ministry of Economy, Trade and Industry (Meti).)** If we estimate the cost that Thailand has to pay, only in oil transport alone, it would be more than 100,000 Million Baht per year. If we summarize other import-export goods to and from Thailand both Industrial and Agricultural, the Thai Canal would save another 100,000 Million Baht per year.

10. **The Thai Canal** will create a bigger role in the development of the countries in Southeast Asia, on both Thai Coasts, in the Indian Ocean and in the Pacific. Other countries will benefit from costs that will be reduced in sea transportation such as transport from India to China or Japan that the Thai Canal route will save 5 days of transport, valuing several ten Million baht per trip. Sri Lanka, Bangladesh, Burma, Laos, Cambodia, Vietnam, China, Japan, Korea, Philippines or even Malaysia will benefit from The Thai Canal, creating a huge advantage in

diplomacy with Malaysia because the Thai Canal will shorten the route and the time of Malaysia ships that use the Thai Canal to transport to the northern part of Malaysia. (Malaysia request permission from Thailand to open the border for land transportation, if the Thai Canal is constructed, Thailand can stop ground Transportation)

11. The Greenhouse Effect. The Thai Canal will save fuel in transportation and reduce world pollution problems that are causing the Greenhouse Effect in the atmosphere. That in turn, causes natural disasters that are more severe everyday and effecting Thailand. At the present, America hasn't signed the Tokyo agreement on pollution reduction. If The Thai Canal is completed, it will help solve a part of this problem.

12. The Borderless Era of Thailand's Economy. The Thai Canal will be the main source of Income for the country. We can use the potential of the Thai Canal to develop a financial strategy of the country without any other country competing because the geographical specialty is located only here in Thailand. The Thai Canal will be like a national resource, always creating profit for the Thai economy stably. In the World Trade Organization, all 147 member countries use trade strategies. In the future competition in international trade will be severe. We all know that the revenue from agricultural exports from Thailand is even less than revenues from tourism. Even though agricultural products are important for Thailand but there is no way that we can expect agricultural products to lead Thailand to prosperity. Information from the National bank of Thailand states that the value of agricultural products in Thailand is only 9-10% of Thailand's GDP or around 500,000 Million baht and using half of the people of the country. Income from tourism is 700,000 Million Baht or even in the Industrial sector, the income we receive from our industrial products is from labor or assembly. The net income from the industrial sector seems high but is really only 25-30% of the export value.

20 years ago, our neighboring countries used to be our main customers such as China, India, and South Korea but now are our sellers. In the future we may be buying from Vietnam, Cambodia, Laos or Burma because these countries still have lower labor costs and still has abundant natural resources. In the present countries that have run out of resources have already invested in these 4 countries. In the future these countries might sell agricultural GMO products competing with Thailand, as for Malaysia, they have already stepped ahead us by far.

So, the Thai Canal Project is hope and opportunity for the country to rise in financial and political stability. It is really a blessing that Thailand is located at this special spot. Is now

the time for us to present these facts for the people? So the people can participate, to acknowledge and to help in deciding whether if this project is beneficial or not.

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