

## **CHAPTER II**

### **THE ORIGINS OF UNITED STATES FOREIGN OIL POLICY: SHALE OIL VS CRUDE OIL**

In this chapter the writer would like to explain about the United States Foreign Policy about oil. There will be an explanation about shale oil and crude oil. The difference between shale oil and crude oil will be explained within the explanation in both types of oil. The explanation about the impact of shale oil in economic sector of United States will be also explained.

#### **A. United States Foreign Oil Policy**

Foreign oil policy first emerged as an issue in United States foreign policy in the era of World War I. The cause is due to the growing interest of oil for modern industry. United States experienced a fear of deficit in domestic oil reserves and United States also need foreign markets as the additional sources to supply oil to United States. Although oil production in United States increased rapidly with new oil discovery in the United States, the peak of the invention was in East Texas that has large oil fields in 1930 (Saudi Aramco, 2017) . It can increased the presence of United States companies in the foreign oil field that allowed United States companies to supply the foreign market share with oil resources overseas (New American Nation, 2017).

Foreign oil usually has cheaper price in terms of production and the way to transport it. It can increase the company's profits and it can be a strategy of United

States to remain outside the country to fulfill the increasing of demand without reducing oil reserves in United States. United States insisted to continue the *open-door* policy by rejecting various alternatives such as government ownership of oil reserves. *Open-door* policy was considered as the more appropriate opportunities for United States oil companies to add more space to foreign oil. Disputes between United States and British regarding access to Middle East problems began when the government provides support behind the cooperative private arrangements between United States and British oil companies.

Iraq Petroleum Company was established in 1928 allowed certain United States oil companies to join the oil in Iraq along with British and French companies. To ensure that oil development in the area of Iraq took place in a cooperative way, Iraq formed a consortium agreement. Consortium agreement contains a prohibition of its members to develop oil in the old territory of the Ottoman Empire. In addition to the Red Line agreement, United States government also managed to support the oil companies in United States to obtain concessions in the Middle East (New American Nation, 2017).

In 1930, Standard Oil of California (SOCAL) gained concessions on Bahrain, and in 1933 gained a concession area in Saudi Arabia. Texas Company joined SOCAL in Bahrain and Saudi Arabia in 1936 (Saudi Aramco, 2017) . Meanwhile, Gulf Oil Company which cooperated with the Anglo-Persian has been getting into Kuwait, which was not in the Red Line. Saudi Arabian Oil Company is the national oil company of Saudi Arabia which is centered in

Dhahran, Saudi Arabia. However, the value of Saudi Aramco is expected to reach 10 billion US dollars; it became the company with the highest in the world.

After United States has been able to join in Standard Oil of California, then United States and British focused on oil in Latin America. United States and British worked together to take control of oil in Latin America, United States and British oil companies had been active in Mexico since the beginning of the century and Mexico became the world's leading oil exporter during World War I era. It can caused an injustice for the citizens of Mexico, a conflict that was faced by Mexico with foreign oil companies for nearly a decade and give ownership of subsoil rights will complicate Mexico to reach out and share the profits generated by the government of Mexico. Although United States and Mexico can work together with the company's position which is belongs to United States that already operating in Mexico, oil production in Mexico which is should increase but it decreased. Mexico's oil declined sharply during a year in 1920 and Mexico tried to invest to Venezuela which has become the third largest oil producer in this world (New American Nation, 2017).

In March 1938, a dispute between major oil companies and Mexican workers made Mexican government tried to nationalize all the United States and British oil companies that operated in Mexico (New American Nation, 2017). It did not only affect international companies that operated in Mexico, but the impact was also on access to foreign countries which have been a proponent of Mexico in the economic sector. Nationalization of the oil companies got some

threats from the oil companies that operated in Mexico, United States tried to boycott the oil production in Mexico and the United States tried to threaten other companies not to sell equipment to the government-owned company of Mexico, Petroleos Mexicanos (Pemex) (New American Nation, 2017) . However, being aware of the impact of the United States investment went abroad, the Department of State imposed sanctions for Mexico to pay compensation to the United States and British. Moreover, Mexico did not have sufficient funds to pay full compensation to United States and British. Therefore, Mexico provides compensation in the form of long-term operation industry. Since then, Mexican oil companies are controlled by United States and British, in which United States still boycott Mexico not to sell oil abroad (Engdahl, 1992).

After having a dispute with Mexico, the United States managed to control the production of oil in Mexico. Moreover, United States seeks to cooperate with Venezuela in terms of oil. Venezuela was under the control of United States and tried to increase the oil production in the country and become the country's largest oil exporter in the world. Although United States has been able to produce its own oil, the oil use is not balanced with the oil production. United States' oil reserves have decreased significantly. It makes United States seek to restore the situation by focusing attention to the Middle East region, especially Saudi Arabia (New American Nation, 2017).

National interests must be accomplished so that the goal of a country can be achieved. The national interests of United States in terms of oil in Saudi Arabia

was also felt as necessary steps to secure access of oil in Saudi Arabia by increasing government ownership. During the Roosevelt administration, the government was trying to create a state-owned national oil company that aims to take over the concessions currently held by ARAMCO (New American Nation, 2017). United States government was also proposing to construct and own an oil pipeline that stretches from the Persian Gulf to the Mediterranean, the purpose of having the pipeline is to secure the United States shares in the Middle East (New American Nation, 2017).

In 1930, the United States government's concern in Anglo-American oil agreement that the possibility of foreign oil which have low prices to meet the market of United States. Meanwhile, United States government will not destroy the oil industry in the country, but the government intends to increase oil production in Middle East that United States can save its own oil for future defense needs (Engdahl, 1992). United States switched the focus of their attention towards the big oil companies to secure national interests in terms of foreign sources of oil. The only foreign oil policy that all parties agree is that the government should limit its involvement in the issue of foreign oil to maintain an international environment in which private companies could operate the industry with benefits and security. National interests in foreign oil and the increase of the influence of the oil companies can control the world's oil economy (New American Nation, 2017).

## **B. Shale Oil in United States**

United States is the country that has the largest reserves of Oil Shale. This can be a weapon for the United States to defeat oil in Saudi Arabia and slowly take control of oil in the country. The United States' success in producing Oil shale can be seen from the consumption of shale gas in the United States which is increasing.

### **1. The Origins of Shale Oil**

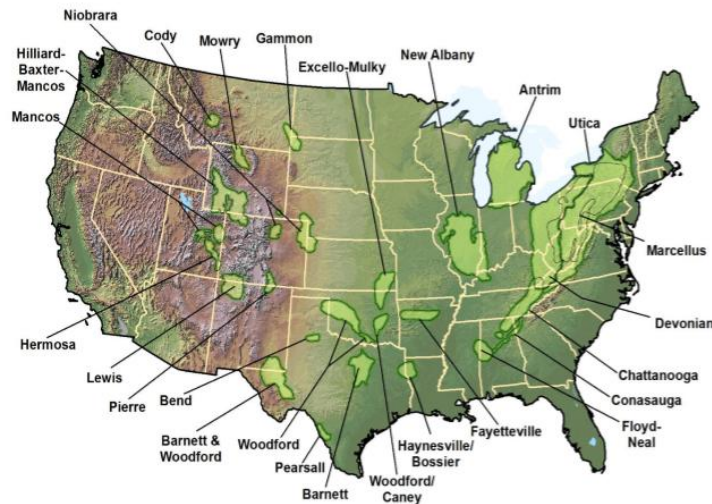
Today, only a few shales which are known to have the potential for production, and nearly all are found in North America. Shale gas is included into the type of conventional natural gas which is also included into the type of CBM, methane, and gas hydrates that come from tight sandstones. Oil and gas are produced in shale rock in which these rocks contain hydrocarbon resources. Shale is a sedimentary rock that contains clay and minerals (Council, 2010).

Shale usually settles into sludge in an environment of weak energy and has a basin in which the clay particles that have a fine grain are falling from the suspension under the calm waters. Besides being able to settle into clay, shale also can settle into an organic material that is usually formed into algae. Shale gas serves as both a reservoir and a source for natural gas; the form of shale gas is usually shaped a dry gas containing 90% or more Methane (Kell, 2009). But after further research, shale gas can also produce wet gas which normally produce water and gas (Kell, 2009).

## 2. The Production of Shale Oil in United States

As the basis of the shale gas production, shale gas expansion which resulted in natural gas prices tend to decline. The low gas prices and the increase of oil reserves for the long term will provide an opportunity for Shale Oil industry to influence the industry in order to switch to gas. The power generations workers also assume that if the price of gas will be more rudy than the price of coal, then they will switch to use gas power generations. There are two types of oil replacement; the first is the direct use of CNG (Compressed Natural Gas) which refers to the users of diesel, typically used for transportation. The second is the increased use of GTL (Gas to Liquids) which is particularly for the use of gas without plumbing. This type will be in great demand because it is very clean and environmentally friendly (Council, 2010).

Figure 2.1 : United States Shale Basins



Based on the Figure 2.1, the lower 48 states have a broad distribution of the shale which the country has natural resources and natural gas. Texas had already started the production of shale; Texas can produce 6% of all natural gas produced

in the lower 48 states (Kell, 2009). Shale gas was contained in most of the lower 48 states. Figure 2.1 shows the location of the current interpretation that produces shale gas. There are six types of shale including the Barnett Shale, the Haynesville / Bossier Shale, the Antrim Shale, the Fayetteville Shale, the Marcellus Shale, and the New Albany Shale (Kell, 2009). Each of shale has different shale gas and uniqueness, because the development of shale gas resources in brackish waters of their regions faces different opportunities and challenges. Shale gas production is expected to contribute significantly to maintaining the domestic energy prospects in United States in which the contribution by increasing the drilling and fracturing technology is considered equivalent to the economic potential of shale gas (Kell, 2009).

### **3. Shale Oil in Economic Sector**

United States is the biggest producer of oil shale, which contains dozens of oil shale which have been discovered in the United States, especially in North America. This condition became an opportunity for the United States to develop shale oil has become a major worldwide oil replacing crude oil. Many types of oil shale found in the United States have been processed into oil and gas shale that has started to be exported to various countries. It is a distinct advantage for the United States in terms of economics.

In terms of macro-economics, exporting fuel and services add value to United States. The same trend is 'inject balance' macro-politics. In Western Europe, Conoco Phillips, and others have initiated various shale extraction



agreement (Shale Gas Europe, 2014) . In China, a country haunted by severe pollution from burning coal is trying to switch to natural gas which is much cleaner. Coupled with a surge in demand for oil, Chinese companies invested billions of dollars in United States shale projects for profit and gain access to expertise. More recently, Petro China joined the revenue sharing agreement with Hess Corporation to develop oil shale in western Xinjiang (U.S Department of Energy, 2015).

Furthermore, the shale revolution made in United States is to rebalance the flow of trade and influence that comes from oil and gas. United States supply has changed the world market while the debris must-have knowledge for the sake of global energy stock availability. Every week, geologists and engineers develop new extractive technologies. Every month there is the changing of the quantity of water pressure which is needed for fracturing. Today, United States has the ability and technology that cannot be defeated to produce shale oil for 10 years.

### **C. Crude Oil**

Oil is liquids that contain complex mixtures of natural. The main constituent of the oil is a hydrocarbon that contains more than 90% (Abdel-Raouf, 2012) . Although oil is the main content of carbon and hydrogen, before it is formed into carbon and hydrogen, these compounds passed through the organic phase prior to joining to form the complex molecules of crude oil (Gordon & Joseph, 2012). The organic material of the oil comes from organic sulfur, nitrogen, oxygen and

organometallic derived from single-celled plankton in plants, such as blue and green algae and single-celled plankton in animals, such as foraminifera (Gordon & Joseph, 2012).

Inside the rocks is about 90% of the organic materials contained in the rocks scattered kerogen (Gordon & Joseph, 2012). Superbly sediments buried for hundreds of years could potentially contain a large kerogen so nice to be processed into crude oil. To produce kerogen, temperatures are also included as the important thing to note. High temperatures speed up the ripening process of the formation of petroleum. Depending on the amount and type of organic material, oil generation occurred during the mature stage at a depth of about 760 to 4,880 meters (2,500 to 16,000 feet) at temperatures between 65 and 150 ° C (150 and 300 ° F) (Gordon & Joseph, 2012). Heating kerogen from the main rock is conducted over long periods of time and produces the cracking kerogen molecules and releases the paraffin chains attached coupled with a variety of saturated and unsaturated hydrocarbons which form a mixture of crude oil (Gordon & Joseph, 2012).

The different properties between crude oil and oil shale make them more incentive to produce oil that they have. Oil production is carried out in order to prove who has the oil content better. Based on the analysis of the writer, crude oil contains a lot of kerogen and hydrocarbons and also contains sulfur which has a negative impact on the environment because it can pollute the water and air. Meanwhile, oil shale contains more minerals and hydrocarbon gas. This is a debate in which the content of shale oil is lighter than on crude oil and shale oil

which are also very environmentally friendly. But on the other hand, crude oil has a cheaper price than the oil shale in terms of the production cost and sale of oil.