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NORWEGIAN OIL MANAGEMENT STRUCTURE: FAROUK AL-KASIM INNOVATIVE SOLUTIONS

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ABSTRACT

After the discovery of oil in the Norwegian coast, many uncertainties were raised in the public administration and environmentalists but Farouk Al-Kasim came up with innovative ideas on how to handle the present and future of the oil industry. Farouk Al-Kasim is considered as one of the fathers of the Norwegian oil model; a rare example of good governance among the major oil-producing countries. The Norwegian model has to take accountability on first, the expertise of Farouk Al-Kasim, second, the state's institutional capacity and third, the political stability and government transparency.

This article focuses on how Norway managerial structure could affect the state's economy, and refers to the oil market of Norway. It also shows how Norway success depends on its initial institutions and a package of innovative and sustainable strategies. The paper concludes that good governance has been affecting the economic and political equilibrium of Norway economy. This article describes how the policy and management decisions taken in the past have a great impact on the present and are expected to positively affect the future equilibrium of Norway.

Key words: Norwegian oil model, Farouk Al-Kasim, Oil management, Statoil, Oil exploration, Technological innovation, Sustainable solutions.

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1. INTRODUCTION

Norway is located in a strategically interesting area between the sea lanes and air routes. It even has the world longest coastlines. Before the discovery of oil in 1969, Norway was a country of a three million population with an economy based on shipping, fishing and hydroelectric industry. Hence, fish, forests, and minerals were the main key areas in Norway, but after the discovery of oil and natural gas in the late 1960s, the economic performance went beyond expectations. The petroleum sector has been playing a vital role in shaping the state sectors and boosting its export revenues.

Currently, Norway is the world's third largest exporter of natural gas and the seventh largest exporter of oil. This paper describes how Farouk Al-Kasim, one of the world's leading experts on oil governance has been credited with masterminding the Norwegian oil governance institutions.

2. FAROUK AL-KASIM: THE MASTERMIND OF THE NORWEGIAN OIL MANAGEMENT STRUCTURE

Farouk Al-Kasim an Iraqi born geologist with a British higher education worked in an oil company in his native country for almost 10 years. In August 29, 2009, he was tagged by the FT Magazine as the mastermind of Norway's success as an oil power.

It all started in 1968, due to personal reasons he left a very stable social and professional position in Iraq to Norway, where he was not expecting to work in his expertise in petroleum exploration and production, since at that time Norway had no oil resources. Shortly after landing in Norway, he presented himself to the Ministry of Industry, in Oslo, searching for potential addresses of local companies where he might be able to work. At that time, there were not any petroleum activities but the government was investigating in insistence the possibilities to find the black gold. The government kept his hope alive even after the Geological Survey of Norway (NGU) sent a letter to a Norwegian delegation of Foreign Ministers, in 1958, where they stated it may disregard the possible existence` of coal, oil or sulfur on the continental shelf at Norwegian coast (Carstens, 2010a). According to Al-Kasim, this was due to the weak technological survey methods existing at that time (Imeland, 2014).

During the same day of his visit to the Ministry of industry, Farouk Al-Kasim got a job interview where he gave his positive opinion on different seismic surveys, and got a temporary assignment to assess the potential for finding oil and gas in the Norwegian shelf (Mizoory, 2016). Three months later, he was appointed as an advisor for the same Ministry. They were in a need of highly qualified people in different related oil expertise; Al-Kasim landing was timely with their needs. His first appointment was the evaluation of the so-called Cod field, where the US Phillips Petroleum Company was still searching unsuccessfully for oil.

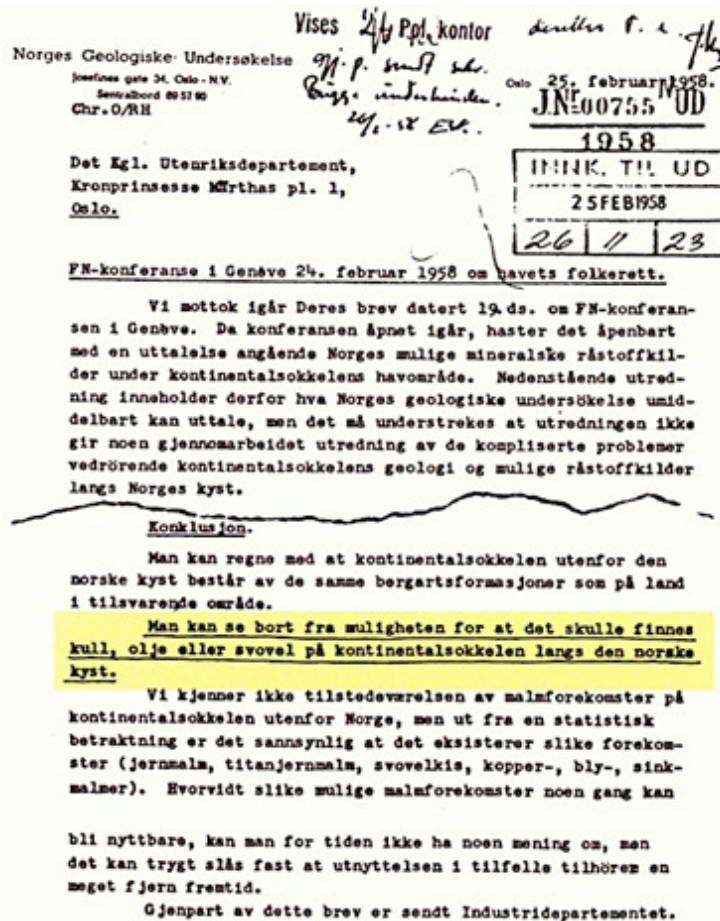


Figure 1 1958 Geological Survey of Norway letter

Authorities in Norway at that time with very little knowledge of what the companies had found in the North Sea. The only thing they had to deal with was the foreign oil companies' words, who said that the findings showed little irrelevant evidence. The difficult geological and weather conditions could not produce a profitable commercial product at that time. However, Al-Kasim was very optimistic basing himself on the preliminary researches, giving the Ministry of Industry a great hope of finding great quantities of oil and gas (Imeland, 2014; Carsten, 2010b).

Al-Kasim spent three months examining the results of thirteen exploration wells before coming to the decisive conclusion that Norway has black gold in its coasts. However, his discovery was not believed until a year later, in December 1969, when the American company Phillips Petroleum Company announced the discovery of a gigantic undersea oil and gas field known as Ekofisk. Upon this proved discovery, a lot of panic and uncertainties followed as the country has no expertise on how to handle the oil field; the petroleum industry is known to be confronted with a series of hard challenges. However, Farouk Al-Kasim dissipated all the worries by his proposal about creating a state-owned company, Statoil, to provide work for Norwegians and gradually develop local expertise in the field; and, at the same time, to create a fully independent regulatory body, the Norwegian Petroleum Directorate. From 1973 to 1990, Farouk Al-Kasim was the resource director in the Norwegian Petroleum Directorate (NPD), contributing not only in Norway but all over the world in the development of effective management petroleum of nations. There are basically a few major approaches to improving efficiency in petroleum strategies:

- To improve the organization of the sector which will prompt better operational practices.
- To use all technological innovations.
- To use energy more efficiently.

Nevertheless, the best approach that leads to a steady success is definitely a good relationship between governments and licensees. With this regard, Norway has been very fortunate because long before the advent of petroleum operations the country was a well-developed stable democracy with long traditions in good governance. Norway had indeed an exceptionally good starting point in terms of its own capabilities and its system of governance. It was also fortunate in the timing of Farouk Al-Kasim move to the country which coincided with the beginning of Norway's move towards an oil exporting state. Since 1972, Norway has separated policy, regulatory, and commercial functions in the government's administration of petroleum development.

Al-Kasim was fully aware about "Dutch Disease," a phenomenon that first appeared in the Netherlands in the 1960s, after the country relied on its natural wealth that causes the inactivity of its production and the weakness of its industrialization. Farouk Al-Kasim was fully alert to this paradox and in a way to avoid it; he suggested having a transparent policy and robust planning.

Many countries grew out to be dependent on their natural resources like Nigeria, Azerbaijan, the Gulf States, Spain, Mexico, Australia and South Africa (after the discovery of gold and diamond mines). The Dutch disease was and still is a serious problem that touches the population. Al-Kasim studied many oil-exporting countries, and figured that a policy and a consensus are needed for the national interests.

Al-Kasim knew that many oil-rich countries failed to leverage their oil wealth to build strong and stable states. The oil resource wealth in many of these countries soon became associated with weak state institutions, poor governance and high levels of corruption. Thus, he suggested limiting the dependence on the oil revenues in a way to prevent the oil money from influencing negatively the future of Norway industries, governance or economy. His idea developed into the well-known country's "10 Oil Commandments" in 1971 that underpinned Norwegian oil policy. Dictating two essential policy elements that remain central to the Norwegian petroleum policy today: sound macroeconomic policy, and the creation of a State-owned oil company to participate in the exploitation of oil resources and develop domestic industry. Although Statoil has been partly privatized, it remains an important vehicle for the Norwegian national petroleum policy.

The "Ten commandments" outlined ten areas of importance for the Norwegian government in the exploitation of their petroleum resources. Firstly, the national control must be secured for all operations on the NCS. Secondly, petroleum discoveries are to be exploited by an independent Norway independent with regard to the supply of crude oil hence ensures energy security for Norway. Thirdly, new oil based industrial activities should be developed, establishing a new livelihood. Fourthly, always protect nature and environment. Fifthly, flaring of usable gas on the NCS must not be accepted except for shorter testing periods. Sixthly, petroleum from the NCS must as a main rule be landed in Norway with the exception of individual cases where national policy provides for other solutions. Seventhly, State becomes engaged at all feasible levels in order to fulfill national both national and international objectives. Eighthly, a State oil company is established to take care of the State's commercial interests and to have a constructive collaboration with domestic and foreign petroleum interests. Ninthly, a pattern of activity is to be selected outside the North Sea (north of the 62nd parallel) which answers all the policy concerns that apply in this part of the country. Tenthly, Norwegian petroleum discoveries will present the Norwegian foreign policy with new tasks.

3. INNOVATIVE TECHNOLOGIES FOR OIL EXPLORATION

Al-Kasim pushed the government to increase the production rate by using new technologies such as “horizontal drilling” or “water injection”, and was able to undertake a pilot project with this method even when the proposal received objection (Carsten, 2010).

This method, already in use in USA by the oil industry, consists of the injection of water in the oil reservoir to increase the pressure and displace the oil/gas from the reservoir and push it towards the wells. With this kind of technologies they were able to eliminate the adverse effects of the chalk reservoirs but also to increase the production. The average extraction rate in Norway today is about 45% while it is 25% in other extraction site in the world (Carsten, 2010).

3.1. Sustainability initiative

Since the discovery of the oil in the Norwegian coast till today, the Norwegian government is very conscious about the negative impact of oil extraction. Goliat, located in the Barents Sea, is the first innovative floating cylindrical production and storage (FPSO) in Norway and it represents the first step to the development of the oil industry. The key concepts of this technology are shown in figure 2.

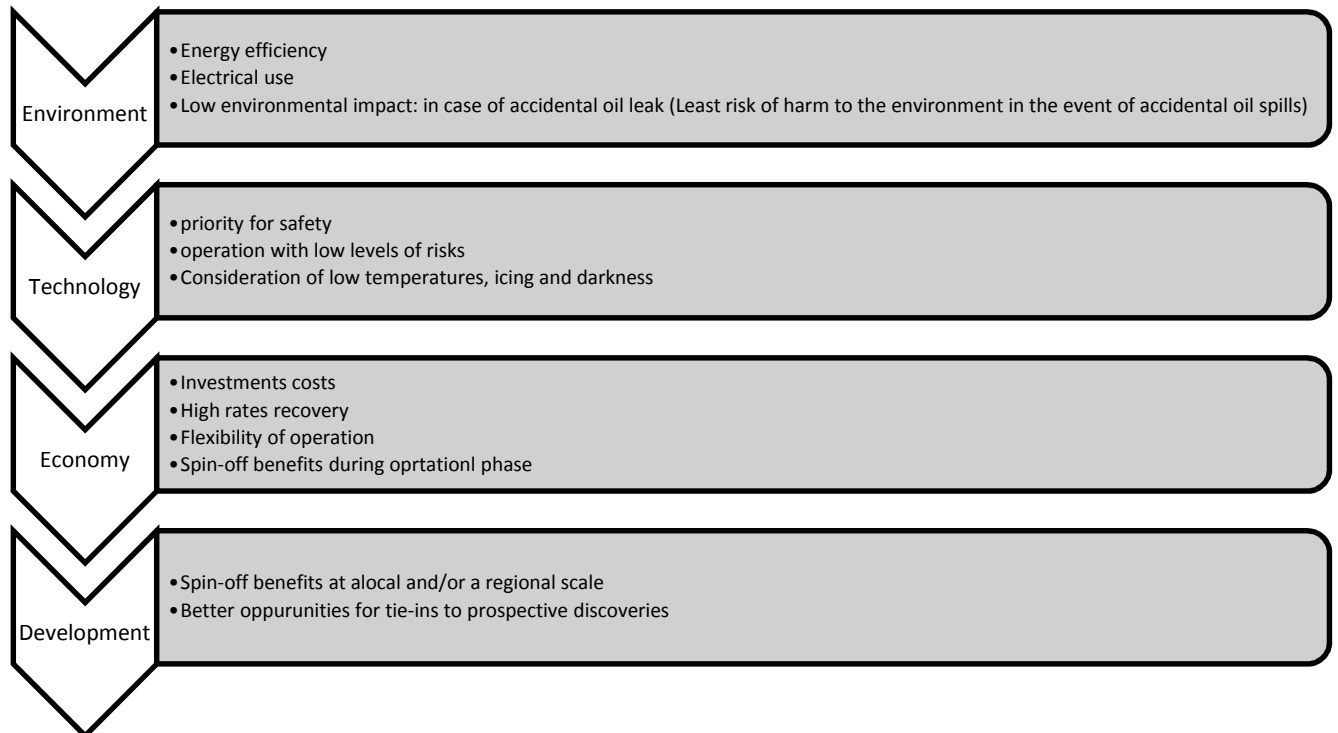


Figure 2 Concept development of Goliat (ENIE, 2017b)

With a 100.000 barrels production per day and 1 million stock capacities, the platform met the environmental challenges. It used a subsea system composed of 22 wells divided into 3 categories: 12 production wells, 7 water injectors and 3 gas injectors (Fig. 3).

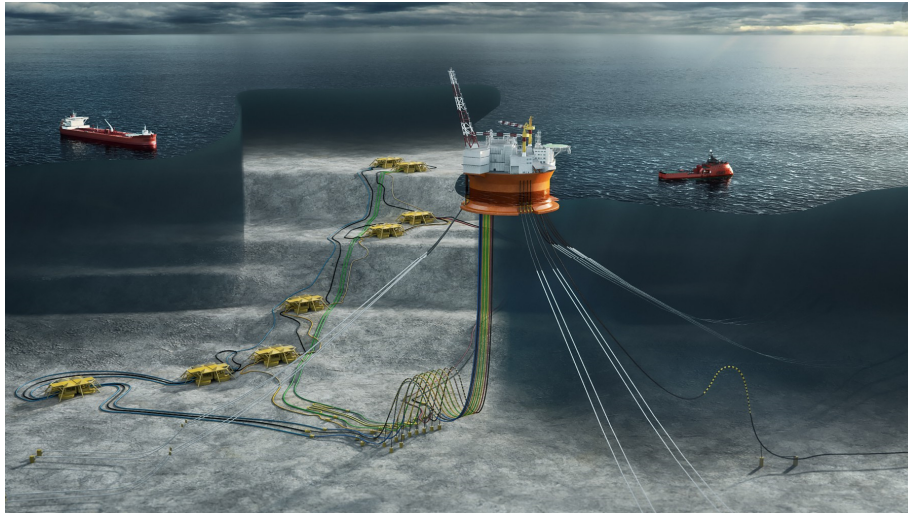


Figure 3 Sevan 100-Goliat platform

3.2. Zero discharge project

As Norway started to grow into a highly industrialized country, the government knew that it will be difficult to reduce the energy use or the CO₂ emissions, but still took over the challenge and worked at finding the most advanced technological solutions. For example, a Subsea cable of 80km long is powering the Goliat platform at a zero discharges concept, with hydro-generated electricity from Hammerfest. In addition to that, the onshore heat recovery generates electric power. These solutions are already reducing the CO₂ emissions by 50% (ENIE, 2017a)). Produced water and gas will be re-injected into the reservoir, this solution was selected based on the three criteria:

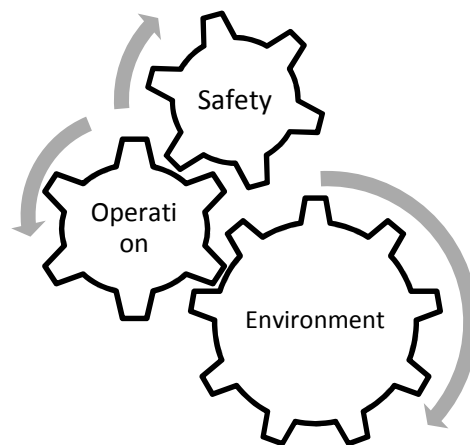


Figure 4 The main three criteria for the best zero discharge project

4. A PIONEER VISION: PRIVATE COMPETITIVENESS AND GOVERNMENTAL CONTROL

Basing himself on his own experience in Iraq, Al-Kasim proposed a draft of law on state/international oil companies' relationship so that Norway will not lose control on a strong a powerful industry against private oil companies and instead “the nation must be in charge.” (Mizoory, 2016).

In a team of few people, they presented during 1971 a draft for the Norwegian oil policy known as the “Norwegian oil model” which states how Norwegians can manage the oil resources as a common good. As a result, a ministry in charge of oil affairs was created as an independent regulatory body that makes sure everything is going right. Norwegian Petroleum Directorate (NPD) and a state oil (Statoil) company that took care of the commercial interests were also created.

These changes provided work for Norwegians and gradually developed local expertise in this sector. That is exactly where the secret to Norway success lies. This sounds simple but historically only Norway is said to have actually succeeded in managing their natural resources. In addition, like the USA Economist Milton Friedman said: “If you put government in charge of the desert, within a few years there would be a shortage of sand”. The Norwegian oil is thus exploited under the supervision of the NPD within the limits of achieving environment. By designing this system, Al-Kasim made sure the distribution of the oil profits is equally balanced between the nation and the international private oil companies. As a rule, the functions were divided as the following:

1. The Ministry of Petroleum and Energy govern the petroleum legislation and policy making.
2. The Norwegian Petroleum Directorate (NPD) coordinates all technical and regulatory matter.
3. The a National Oil Company, called Statoil, work on all commercial operations on a national and international level (Al-Kasim, 2006).

The government has only the right to withdraw 4% of the annual capital to support its budget (which still depends largely on high taxes). The result is that the Norwegians do not only have the highest per capita income (and the best social and health system in the world), but they also have personal wealth and national income totally not related to oil resources. The share of every Norwegian citizen in his country's sovereign wealth fund exceeds \$5 million. In an article written by Alister Doyle (2014) Norwegians are even described as crown millionaires thanks to high oil and gas prices.

Oeystein Doerum, the chief economist at DNB Markets said that "The fund is a success in the sense that parliament has managed to put aside money for the future. There are many examples of countries that have not managed that".

5. CONCLUSION

Since the discovery of the oil in Norway, Farouk Al-Kasim acted not only as a geologist, but also as a policy maker and an environmentalist. He was the reason behind the creation of a new policy, institutional organization, a whole regulatory framework, and fiscal regimes in petroleum resource management. He also used all the new technologies available at that time to boost the oil production and advised the government to re-invest the oil-generated income into the future Norwegian generation. Norway built its petroleum industry with cautious and diligent steps. This led to the building of a robust technical capacity in the petroleum sector, in terms of administrative or technological front. The Norwegian petroleum model of separation of functions has had a great impact in giving more value for the state. Norway's success can be attributed to four key elements:

1. Norwegian special tax regimes.
2. Norway's sovereign wealth fund which is recognized as one of the fastest-growing in the world. As a result of the oil prices increase, the funds accumulated leading to many investments and raising the value of the local currency.
3. Limited withdrawals that do not exceed the fund's annual return target of 4%.
4. The government commitment to sustainability and respect for the ecosystem as a whole.

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