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Identifying The Root Causes To Indonesia's Oil and Gas Problems and Islam's Way of Solving Them

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The history of oil & gas resource management in Indonesia

The concession era: 1899 – 1960

Fortunately, Indonesia is quite an apt example when discussing the management of oil & gas resources, since it is one of the first countries where oil & gas production became a real industry. The international *supermajor* Royal Dutch/SHELL actually began operations in Indonesia, back in 1890, producing oil from a well in Sumatra named "Telaga Tunggal No 1".¹

During those days of colonialism the management of the Indonesian oil & gas resources was organized through the "Indische Mijnwet", or in English the "East-Indies Mining law" of 1899. This law applied the principle of concession under which a company buys from the state all rights to a natural resource in a particular area. The concession holder then has free and total control over this natural resource, meaning he can produce however much he wants and whenever he wants, and he can sell it to whomever he wants at whatever price he wants.

The Contract of Work era: 1960 – 1966

Following Indonesia's independence in 1945, the new constitution set out a different vision for the management of the oil & gas resources of the country. Article 33 of the 1945 Constitution ("UUD 45"), stated:

- (1) *The economy shall be organized as cooperative based on the concept of family.*
- (2) *Branches of production which are of importance to the State and which affect the majority of the people shall be controlled by the State.*
- (3) *Earth, water and natural resources contained within the earth shall be under the control of the State and shall be used for the maximum welfare of the people.*

This vision clearly conflicts with the practice of concessions. However, the Indonesian government lacked a clear idea about how to change the then existing situation and bring the vision set out by the constitution into practice. Also, it was hesitant to make any drastic changes since the export of oil & gas was essentially the only source of foreign currency for the country and the state budget was completely reliant on revenues from oil & gas production. Consequently, the three foreign oil companies that dominated the Indonesian oil & gas industry in 1945, SHELL, Stanvac (now ExxonMobil) and Caltex (now Chevron), were left free to operate essentially as they had done during colonialism.²

The "Oil and Gas Mining law" of 1960 was the first attempt by the Indonesian government to wrestle some control over the Indonesian oil & gas resources from the hands of these foreign oil companies. It stated the following:

- (1) *All oil and gas found within the territory of Indonesia is national property and controlled by the state.*

¹ www.shell.co.id/home/content/idn/aboutshell/who_we_are/history/country/

² "The Indonesian Production Sharing Contract: An Investor's Perspective", Tengku Nathan Machmud, Kluwer Law International, 2000

- (2) *Oil and gas mining shall only be carried out by the state and be implemented only by state enterprises.*
- (3) *The Minister of Mines may appoint other parties as contractors of the state enterprise if necessary.*³

With this new law in hand the government tried to make the foreign oil companies operating in Indonesia sign Contract of Work (COW) agreements. In principle a Contract of Work agreement limits the role of the oil company to that of a contractor, hired to perform a specific task by the owner of the natural resource, by the state. Obviously, SHELL, Stanvac and Caltex refused this offer. The compromise reached was a Contract of Work agreement in which the foreign oil company acknowledged that the Indonesian government was the owner of the oil & gas resource in the ground, in return for which the Indonesian government gave the foreign oil company the right to produce of the oil & gas resource however much it wanted and whenever it wanted, as well as the right to sell the produced oil & gas to whomever it wanted at whatever price it wanted.

In practice, therefore, these Contract of Work agreements were no different from the concession agreements that they were intended to replace.

The attempt at nationalization: 1965

Obviously, the Contract of Work agreements did nothing to change the “balance of power” between the Indonesian government and the foreign oil companies operating in Indonesia. The foreign oil companies continued to control Indonesia’s oil & gas resources and they kept the Indonesian government completely in the dark on all issues of importance, such as exploration, development and production plans, and pricing strategies. In order to keep this situation in place as long as possible the foreign oil companies operating in Indonesia also had policies in place to prevent their Indonesian employees from receiving training in essential oil & gas skills such as geological interpretation, oil & gas engineering, project economics, financial analysis, and international oil & gas marketing.⁴

Towards the end of 1965 president Sukarno began to increase the pressure on the foreign oil companies controlling Indonesia’s oil & gas resources. He instructed Chaerul Saleh to make them accept a management takeover by the Indonesian government – effectively a nationalization of their oil & gas assets in Indonesia.

Then US Ambassador Green noted in his memoirs that the US government in Washington D.C. was very concerned with this and that he was instructed to work with his contacts in the Indonesian military to obstruct this plan. So he contacted general Suharto and minister Adam Malik with the aim of preventing the nationalization, while his assistant Frank Galbraith worked with general Nasution. Consequently, when on the 15th of December 1965 Saleh laid out his plans to bring Indonesia’s oil & gas under complete state control, general Suharto flew to the meeting by helicopter to make it crystal clear to all assembled that the military would not allow any government moves against the foreign oil companies.⁵

The New Order Production Sharing era: 1967 – 1998

Shortly after foiling the attempt at nationalization, general Suharto removed Sukarno from power. In the immediate aftermath, Royal Dutch/SHELL divested from Indonesia selling its assets to the state-owned oil company Permina. The two American oil companies in Indonesia, Stanvac and Caltex, decided to stay but were not interested in expanding their operations. So the Suharto dictatorship began looking for a way to attract new foreign investment in the nation’s oil & gas industry.

Back in 1957, as head of Permina lieutenant-general Ibnu Sutowo had invited one American and one Canadian company into Indonesia to re-develop the former Shell oil fields in the Pangkalan Berandan region of North-Sumarta which had been destroyed during World War II. The co-operation was based on an agreement under which the American and Canadian company funded the works and

³ “Indonesian legal framework in the oil, gas and mining sectors; including dispute resolution”, Mirza A. Karim and Karen Mills, KarimSyah Law Firm, 2003

⁴ Ibidem note 2

⁵ “Sukarno’s Guided Democracy and the Takeovers of Foreign Companies in Indonesia in the 1960s”, William A. Redfern, 2010

executed them under supervision of Permina, in return for which they received a share in crude oil production.⁶

Following the Suharto-coup Ibnu Sutowo rose to prominence and began promoting this scheme to attract the new foreign investment in the Indonesian oil & gas industry. In August 1966 Ibnu Sutowo agreed the first official Production Sharing Contract (PSC) between Permina and the Independent Indonesian American Petroleum Company (IIAPC) from Delaware, USA. In January 1967 this agreement became a formal contract upon approval of the Indonesian government (Ibnu Sutowo had by then been named Minister of Mining, so he was the one who had to approve the agreement he himself had negotiated.)⁷

According to Ibnu Sutowo the primary objective of the PSC agreement was to increase Indonesian control over oil & gas production. In the PSC's Permina was overall supervisor and the operating partner had to submit its plans to Permina for review and approval. A secondary objective was to enable Permina to learn from the foreign oil companies how to manage oil & gas operations efficiently. As overall supervisor Permina could force the contractors to explain their plans and decisions, and thus learn about their management processes.⁸

These objectives were never realized, however.

Firstly because the New Order system made Pertamina (by the time the PSC's came into effect, 1968, Permina was merged with Pertamina to create Pertamina) a cash cow for the corrupt government. So the company was not managed to ensure effective and efficient oil & gas operations, but to ensure money flowed into the pockets of government employees and their families. This mentality of corruption destroyed Pertamina's interest in learning from the foreign oil companies. Consequently, it pretty much left them alone to operate however they wanted and none of the knowledge transfer materialized.⁹

Secondly because Pertamina was reorganized in a way that made it completely impossible for the company to function properly. This happened after the so-called Pertamina-crisis of 1975.¹⁰ (The Suharto government justified its actions by claiming that then Pertamina head Ibnu Sutowo had completely mismanaged the company. According to Ibnu Sutowo, however, Suharto directed the action against Pertamina after he and Suharto had a fall out over a corrupt business deal.)¹¹

And thirdly because the PSC agreements did not and could not give Pertamina the practical experience necessary to managing oil & gas operations effectively and efficiently.¹²

So rather than becoming a better company over time, learning from experience and the co-operation with the foreign oil companies, Pertamina became worse... and worse... and worse. By the year 2000 a review of Pertamina's operations concluded that the company was wasting around US\$1 billion annually through inefficient procurement and resource allocation procedures, and another US\$1.3 to 2 billion annually through inefficiencies in its exploration and production operations.¹³

In other words, the PSC regime of the New Order era left the Indonesian oil & gas resources in the hands of the foreign oil companies. The way the PSC agreements were written prevented Indonesia from developing the skills required to take control, while corruption destroyed whatever skills had already been developed.

The 2001 Oil & Gas law era

The 2001 Oil & Gas law effectively cemented the control of foreign oil companies over Indonesia's oil & gas resources.

Through doing away with the national oil company's traditional "first right" to new oil field development, the Indonesian government ensured any future development of Indonesia's oil & gas resources would be managed and controlled by foreign oil companies, since it is impossible for

⁶ Ibidem note 2.

⁷ Ibidem note 2.

⁸ Ibidem note 2.

⁹ "Pertamina: Indonesia's state-owned oil company", Donald I. Hertzmark, Rice University – James Baker II Institute for Public Policy, 2007

¹⁰ Ibidem note 2.

¹¹ Ibidem note 2.

¹² Ibidem note 9.

¹³ "Indonesia Oil and Gas Sector Study", Worldbank, June 2000

Pertamina to compete with the international “supermajor” oil & gas companies on a level playing field following 30 years of state-enforced mismanagement.

Furthermore, through the creation of BPMIGAS Pertamina lost the ability to “fast track” its recovery, as it took from Pertamina the ability to gather theoretical knowledge about the “best practices” developed by the foreign oil companies. Pertamina was been sidelined, in other words. Consequently, just a few years later it in 2005 managed just 59,000 b/d of Indonesia’s 1,062,000 b/d oil production.¹⁴

The consequences of concession and PSC based oil & gas management policies

After some 130 years of oil & gas operations in Indonesia, the country remains completely dependent on foreign oil companies for the development of its oil & gas resources.

The main consequence of this is that billions of dollars leave the country annually, to be spent in other economies, because the foreign oil & gas companies repatriate their profits on the Indonesian oil & gas back their head offices in San Remon, California (Chevron), Irving, Texas (ExxonMobil), Paris (TOTAL) and London (BP).

Another consequence is that a large part of the produced oil & gas is out of the control of the Indonesian government, the detrimental effects of which on the local economy are well-known. Quite regularly Indonesia exports oil & gas while the needs of the local economy have not been met, forcing the country to also import oil & gas but at higher prices.¹⁵ And if Indonesian oil & gas is sold to the local market, sometimes this is at prices that are higher than the export price.¹⁶ This means that very often foreign industries have a competitive advantage over their Indonesian competitors thanks to Indonesian oil & gas!

Most concerning, however, is the fact that both a concession and a PSC based oil & gas resource management policy prevent any improvement of the situation. They effectively guarantee that the situation stays like this, because foreign oil companies can easily outbid the Indonesian oil companies in a concession or PSC tendering process due to their superior managerial skills and technology. Under a concession or a PSC based policy the Indonesian oil companies will therefore never get the opportunity to bridge the current knowledge and technology gap since they will remain locked out from any substantial production activity and from the profits that would enable the serious invest in Research & Technology.

Over time, the lack of local capability should be expected to lead to the foreign oil companies increasing their share in the profit of Indonesian oil & gas. The natural decline in production from the existing fields is a big problem for Indonesia, namely, but not for the foreign oil companies. Indonesia needs investment in the exploration and development of Indonesian oil & gas resources, but the foreign oil companies could invest in dozens of different countries. The foreign oil companies will therefore simply hold out on investing in Indonesian oil & gas resources, possibly investing elsewhere, until the Indonesian government starts sweating and they can negotiate the best possible deals for themselves.

The Islamic oil & gas resource management policy

The recent cancellation of 2001 Oil & Gas law makes this the most appropriate time to look at how oil & gas resources should be managed according to Islam.

The Islamic oil & gas resource management policy build on the saying of Prophet Mohammed (saw) “**The Muslims share in three things, water, pasture lands and fire**” (Abu Dawud). The meaning of the narration is that oil & gas resources are part of what in Islam is called “public property”, i.e. that which is owned by all people together, is free for each of them to use, while none of them has the right to limit the usage by others. In other words, the oil & gas resources of Indonesia belong to the people of Indonesia.¹⁷ Because it is not easy for individuals to benefit from the oil & gas

¹⁴ “Pertamina: Indonesia’s state-owned oil company”, Donald I. Hertzmark, Rice University – James Baker II Institute for Public Policy, 2007

¹⁵ “ Pertamina to import LNG to meet rising gas demand in local market”, Jakarta Post, www.thejakartapost.com/news/2012/06/25/pertamina-import-lng-meet-rising-gas-demand-local-market.html

¹⁶ “China Must Pay Market Price for W. Papua Gas, Govt Told”, Jakarta Globe, www.thejakartaglobe.com/business/china-must-pay-market-price-for-w-papua-gas-govt-told/462830

¹⁷ “From [the Prophet’s (saw)] permission to individuals to possess water, it can be deduced that the illah (reason) of partnership in the water, pastures and fire, is their being of the community utilities that are indispensable to the community. The criteria for

resources in the ground, Islam has given the state the responsibility to develop these resources, and then to use them in a way that maximizes the benefit in them for the people.¹⁸

In order to maximize the benefit in Indonesia's oil & gas resources for the people of Indonesia, the state should manage production of oil & gas itself, possibly through a state-owned company. This would have the immediate benefit of keeping the billions of dollars that the foreign oil companies currently make on Indonesian oil & gas in Indonesia.

Following this, the state should make the produced hydrocarbons available to local industries at cost-price, rather than exporting them in their raw form. This would enable the development of extensive refining and chemicals industries in Indonesia, since their products would be highly competitive on the international markets due to the low cost of their raw material inputs. Similarly, industries that use a lot of energy in their production processes such as steel and aluminum smelting would flourish. Together, the development of these industries would enable a comprehensive economic development of Indonesia since the goods critical for this – both those used in physically building an industry and those consumed in the industry – would become cheap in Indonesia as compared to most other countries in the world.

This would create an enormous amount of jobs in the country. It would also transform Indonesia from an exporter of low price raw materials and importer of high price finished goods into an exporter of high price finished goods, thereby greatly reducing the country's dependency on foreign goods and improving the Current Account Balance. And, the development of this industrial base would give Indonesia a practical ability to undertake R&D and become an innovator and leader rather than a copycat and follower.

Making a vision a reality

It is quite obvious that the Islamic oil & gas resource management policy would bring much greater benefit to Indonesia than the policies applied in the country past and present.

The question is, therefore, why the Islamic oil & gas resource management policy has not been applied yet?

Those with the ability to influence policy in Indonesia will typically answer this question by saying that "Indonesia is just not able to apply such a policy" and point to the technical skills needed to manage oil & gas production, arguing Indonesia does not possess these skills; the financial resources needed for new oil & gas development, arguing Indonesia does not have the ability for such investments; and the levels oil & gas production currently, arguing that Indonesia does not produce sufficient amounts of oil & gas. And therefore, these people typically argue, all Indonesia can do is manage its oil & gas resources on the basis of a PSC based policy.

This line of reasoning is totally false, however. Even if for the sake of argument one would accept the mentioned arguments, than still a PSC based oil & gas resource management policy is not justified. Because as explained earlier, a PSC based oil & gas resource management policy would guarantee that the situation remains as it is said to be, and this is totally unacceptable. If indeed it is the case that Indonesia does not currently have technical skills, financial resources and oil & gas production necessary for the ideal oil & gas resource management policy, then at a minimum a policy should be put in place that ensures the country eventually does become able to execute this ideal policy.

In the present circumstances the comprehensive Islamic oil & gas resource management policy set out above might not be achievable in Indonesia. But it is able to manage Indonesia's current situation and it will do this in a way that ensures the country eventually become able to execute the ideal policy comprehensively.

Under the Islamic oil & gas resource management policy Pertamina would be made the operator for all onshore Indonesian oil & gas fields. Most of Indonesia's current oil & gas production comes from relatively old onshore fields and Pertamina has been doing onshore oil & gas production

determining things to be a public utility is that it is anything which, if not available to the community, whether the community was a group of bedouins a village, city, or a State, would cause them to disperse in search of it, then it would be considered of the community utilities, like the water sources, forests of firewood, pastures of livestock and the like." From: "The economic system of Islam", Taqiuddeen an Nabhani

¹⁸ "Funds in the Khilafah State", Abdul Qadeem Zalloom

since the 1960's. So even in its sub-optimal current state Pertamina will be more than capable to handle this.

By applying the correct performance management processes, it could be ensured that Pertamina uses the added responsibilities to increase its learning, setting it on the path to real Operational Excellence. This learning process for Pertamina could also be "fast tracked" through investment in R&D, which could be financed from the billions of dollars of additional state revenue generated by the transfer of responsibility for the onshore oil & gas fields to Pertamina.

The environment this would create would make Pertamina the "first choice employer" again for the thousands of Indonesians that currently work for foreign oil companies the world over in both technical and managerial positions. Their return would further "fast track" Pertamina's growth in managerial skills and technological abilities. This way, Pertamina would eventually become able to also take over all of Indonesia's oil & gas operations, including offshore. Which would then further increase Pertamina's ability to learn as well as the revenues for the state.

In the meantime, Indonesia's more complex and difficult to manage offshore oil & gas production could continue to be managed by foreign oil companies. The Islamic oil & gas resource management policy has no problem with this as long as it is not done on the basis of PSC agreements, because these give the operator part of the oil & gas production in return for its efforts and since according to Islam the government is not the owner of the oil & gas but just its custodian, it can not give this away. But the government could contract the work out through real Contracts of Work under which the operator receives a pre-agreed amount of money in return for its service.

This is not just the artificial change some people make it out to be. As explained earlier, under a PSC the operator becomes owner of at least part of the oil. The government then has only limited control over the flow of this oil and the operator can decide where to sell it, to whom and for what price. Under the Contract of Work prescribed by Islam, however, the government would retain full control. The benefits of this have also been explained earlier.

Whenever the operational needs are such that a Contract of Work with a foreign oil company is required, the government should ensure that the contract obliges the foreign oil company to actively engage Pertamina's most-talented engineers and managers in these operations, such that Pertamina can over time become able to take over the operations from the foreign oil company. In fact, this is nothing strange in the oil & gas industry, so the government could make this happen.

The problems caused by the decline in Indonesia's oil & gas production could be solved following this approach. Indonesia has in total 60 oil & gas basins, of which just 36 have been well explored and 24 remain under- or unexplored. For as far as the explored basins are concerned, 14 of them are actually in production.¹⁹ A majority of current production operations do not use Enhanced Oil Recovery (EOR) methods, however, leaving substantial opportunity for either improved production from these fields, extended production from these fields, or both.²⁰ Most of the under- or unexplored basins are offshore in the east of the country, and are a geologic continuation of the onshore producing areas displaying many of the same reservoirs and trap configurations.²¹ Consequently, even after 130 years of oil & gas production there remain in Indonesia great potential for production increases.

Bringing the onshore and possibly also the offshore operations under government control would enable the government to finance the introduction of EOR methods at the currently producing fields, as well as exploration activities in the under- or unexplored basins. Again, ideally Pertamina would undertake all these activities. However, if Pertamina is deemed not yet able to do this, this could also be managed under the Contract of Work agreements set out above.

This is how the Islamic oil & gas resource management policy would manage the current situation, while ensuring the country moves towards full development of its oil & gas potential, under complete control of the state, and for the benefit of none but the people of Indonesia.

¹⁹ www.ipa.or.id

²⁰ "Indonesia government to boost oil production by 2014", RigZone, www.rigzone.com/news/oil_gas/a/121878/Indonesian_Government_to_Boost_Oil_Production_by_2014

²¹ www.nikoresources.com/operations/indonesia.html