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THE PATH OF INDONESIA'S ENERGY SUBSIDY REFORM: A POLITICAL CHALLENGE

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Abstract: *The paper attempts to discuss and describe energy reform policy, particularly oil and gas, as a part of resource governance. Indonesia undergoes inefficient energy utilization, and among the emerging issues is about subsidy through the public budget. To date, there are fourteen models of policy reform that have been done, and those models continuously face challenges despite its great importance on the macro scale for budget efficiency for development. This writing proves that the Indonesian case provides essential knowledge of political challenges on reform implementation in a developing country that is prone to the indirect impact of subsidy decrease.*

Keywords: Oil Fossil, Subsidy Reform, Public Policy, Corruption, Indonesia
Research Area: Social Sciences
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1. INTRODUCTION

Indonesia is appealing for global powers due to its abundant natural resources (van Klinken, 1996; Kusmana, 2011; Garnaut, 2015; Cahill, 2020). Most of the Indonesian land is volcanic (Carn and Oppenheimer, 2000) allowing islands like Sumatra, Java, and Sulawesi great for tropical farming (Supriyo, Matsue and Yoshinaga, 1992; Widharto, 2004; Ngadisih *et al.*, 2014; Ishikura *et al.*, 2017; Saryoko *et al.*, 2017; Marwanto *et al.*, 2018). Oil and gas are crucial resources, especially in East Borneo and the Eastern coast of Sumatra (Doshi, 1993; Prawiraatmadja, 1997; Fuady, 2015; Emodi and Boo, 2016; Hartono *et al.*, 2017). Other Indonesia's mineral wealth are gold, tin, nickel, bauxite, copper, and iron (Hunter, 1968; Beers, 1970; Lloyd, 1975; Gandataruna and Haymon, 2011; Maia *et al.*, 2019; Rosyida *et al.*, 2019). In addition to nonrenewable resources, Indonesia also possess renewable resources such as geothermal, solar energy, wind energy, water energy, bioethanol, and biodiesel (Kamahara *et al.*, 2010; Putrasari *et al.*, 2016; Indrawan *et al.*, 2017; Khatiwada and Silveira, 2017; Mohammadzadeh Bina *et al.*, 2018; Pambudi, 2018; Harahap, Silveira and Khatiwada, 2019). It is undeniable that Indonesia is also rich in the palm, which is vital for its development.

This section discusses oil and gas governance in Indonesia since it becomes the primary energy source in addition to the be the pillar of the forex reserves earner (Arndt, 1983; Booth, 1986; Akhmad *et al.*, 2019). Indonesia's energy consumption in the last decade increases 7-8% per year along with population increase and better economic growth. This condition requires proper energy availability to support economic activities and the social dynamics of the community. However, various challenges and obstacles stand before attempts to fulfill energy needs. One of the challenges is the increasing crude oil production, while the acceleration of renewable energy- which is expected to be the new 'backbone' of national energy- is still suboptimal (Akhmad and Amir, 2018).

The leading cause of inefficient energy utilization is the Indonesian government's low-cost energy policy (Sambodo and Novandra, 2019). Low-cost energy through massive subsidy brings negative impact (Bazilian and Onyeji, 2012; Dennis, 2016; Burke, Batsuuri

and Yudhistira, 2017; Yustiningrum, 2017). *First*, a high level of dependence on crude oil energy resources. Low price means disincentive for energy diversification and attempt of conservation (Faizah and Husaeni, 2018). *Second*, the oil fuel subsidy in the state budget threatens the government's fiscal sustainability (Akhmad and Amir, 2018). *Third*, suboptimal utilization of other energy resources, such as natural gas and coal, which have more abundant reserves compared to crude oil or renewable energy(Hassan and Kalam, 2013). *Fourth*, widespread fuel smuggling practice makes the demand higher than the actual needs (Beaton and Lontoh, 2010). *Fifth*, rampant practices of mixing fuel that harms both state and the general customers (Akhmad and Amir, 2018). *Sixth*, The price signal distorts the investment feasibility in downstream oil and gas sectors (Braithwaite and Gerasimchuk, 2019).

The specificity of investment determination on upstream oil and gas of the state's role is quite considerable (Prakoso, 2015). This occurs because the upstream oil and gas sector requires a relatively big investment, advanced technology, and well-trained human resource and is high-risk (Setiawan, 2017). However, investment in the upstream oil and gas sector also brings considerable profit. Accordingly, oil and gas-producing countries attempt to hold full control of operating, production, management, and marketing matters (Husna TR and Tjitrawati, 2017).

One of the national oil and gas governance is the subsidy issue. Both developing and developed countries face demand on the need to remove inefficient subsidy, particularly in the nowadays financial crisis context. The mainstream argument states that revisiting subsidy may help the government to achieve their economic and fiscal goal, while at the same time, overcoming environmental issue such as climate change. Energy subsidy should be rationalized, considering that their reform may bring significant environmental benefits and prosperity. Theoretically, subsidies can be justified if they promote overall social welfare improvement. Nevertheless, even in this case, subsidy and supporting program schemes perhaps should be time-limited because limiting subsidy duration may prevent rent seeker practice and protracting market distortion.

Energy subsidy is vast, broad, and varied. A study showed that in 2012, fossil-fuel consumption subsidy in 37 developing countries equals USD 523 Billion, where almost 50% of it was dedicated to oil product subsidy (International Energy Agency, 2012). Also in 2011, in Eastern Europe, Caucasus, and Central Asia (EECCA) fossil fuel subsidy for the customer (oil, coal, gas, and electricity) cost about USD 2 billion in Azerbaijan (equals to 3.1% of GDP), USD 6 billion in Kazakhstan (3.3% of GDP) and USD 9 billion in Ukraine (6% of GDP). Only 8% of the global amount stated above targets 20% of the most indigent population, showing inefficiency of this mechanism. Further, IEA estimates that if all fossil-fuel subsidies are completely removed in 2020, global primary energy demand will decrease by almost 5%, and carbon dioxide (CO2) emission will decrease by 5.8% (International Energy Agency, 2012).

Some international players in subsidy reform, including OECD, WTO, European Union, IEA, World Bank, IMF, and Global Subsidies Initiative, have contributed to determining subsidy limits (Wilson, 2015a). Despite some differences, their definition, in general, reflects the pivotal elements of subsidy as understood by economists nowadays. Of all definitions, WTO's definition is often adopted as the starting point of subsidy analysis due to its legally-binding nature for more than 150 member states. National laws sometimes provide a definition that is different from the one internationally determined. In discussing certain subsidy scheme, a definition is a key because they internalize discussion in a national context (International Energy Agency, 2012). At the same time, to explain the difference in national and international difference, and to assess the size of the subsidy based on the

internationally determined limit, may lead to a substantial gap at national-level evidence for management and reform of subsidy scheme, including Indonesia.

2. PRODUCTION AND CONSUMPTION

After oil was firstly discovered in 1885 in northern Sumatra, the hydrocarbon sector becomes an essential part of Indonesia's economy. Indonesia produced 911.000 barrels per day of petroleum and other liquid in 2014, and it made Indonesia become the 22nd largest oil producer in the world, accounting for about 1% of global production. Although Indonesia's oil and other liquids production keep decreasing for the last two decades, this country keeps exporting crude oil for the region. Indonesia is also located in strategic maritime transit route, The Strait of Malacca, that serves most of East Asian by importing oil from the Middle East.

Indonesia does not have an international piping line and only a few domestic pipes, making maritime trade pivotal. Most of the petroleum trades are in the form of import, especially gasoline and diesel fuel for the Indonesian transportation sector. This country exports small amounts of oil fuel. This country imports and exports crude oil and is a crude oil importer due to regional imbalance and increasing domestic demand for crude oil at refineries and power plants. In 2014, Indonesia imported more than 441.000 b/d of petroleum and lease condensate, according to Analysis of Petroleum Export (APEX) of Lloyd's List Intelligence. About 28% of Indonesia's imported crude oil comes from Saudi Arabia. Other vital suppliers include Nigeria (18%), Azerbaijan (17%), Malaysia (6%), Uni Arab Emirates (5%), Brunei (4%), and Angola (4%).

Indonesia's oil import remains relatively high due to inadequate refinery capacity to cope with increasing petroleum product demand. In 2014, Indonesia's net import of crude oil was 592,000 b/d. Petroleum product import consists mostly of gasoline (53% of the imported petroleum product), gas for transportation and power plant, LPG for residential use, and jet fuel. Pertamina is responsible for purchasing Indonesia's subsidized gasoline, RON 88, which dominates domestic demands. Japan's demand for Indonesian fuel, which increased after the Fukushima nuclear disaster in 2011, decreased in 2013 because Japan increases the import on natural gas and coal.

Pertamina launches Refinery Development Master Plan to increase the total capacity to be almost1,7 million b/d and signs some partnership agreement with international oil companies. NOC will cooperate with Saudi Aramco in Dumai, Cilacap, and Balongan Refinery, with Sinopec in Plaju Refinery, and with JX Nippon Oil in Balikpapan Refinery. Pertamina expects the increase will be realized in 2022. Indonesia also announces its plan to build four new refineries. Each will have a capacity of 300,000 b/d through a public-private partnership. This capacity increase will require Indonesia to seek for more crude oil import while the gap between the state's crude oil and condensate output and demand increasingly more prominent.

Some factors that hold down Indonesia's oil production are license agreement at local government level, issues on land acquisition and permit, oil theft in South Sumatra, aging oil fields, and less investment for unexplored reserves. The two largest, oldest oil fields in Indonesia are Duri and Minas. Both are located on the eastern coast of Sumatra. Chevron has applied an enhanced oil recovery method for both fields to maintain the production. However, the production of these fields keeps decreasing. The government expects new production from Cepu block and Ketapang, East Java, which have reached its peak at the end of 2015. Industry analysts believe that this big project can offset some declines from mature fields.

Pertamina is now facing challenges to prevent oil production decline while at the same time to fulfill domestic demands. Most of the reserves under Pertamina's control comes from old fields, which requires oil recovery techniques, which is currently out of the domestic company's scope of technology, or basic infrastructure development in remote areas of the country (especially in the eastern region) Some are caused by uncertain regulation and government's steps to support the local company, and limited foreign investment to extract the reserve. Besides, Indonesia's domestic operation has been limited by competition with international oil companies that operate in Indonesia. Following the current regulation, Domestic Market Obligation requires at least 25% of the available oil production for the Indonesian market. This is a part of Indonesia's policy to equilibrate its increasing oil import and domestic needs.

Indonesia keeps exporting crude oil and condensate, although the country has changed into an oil net importer, partially due to the desire to maintain market access and oil revenue. Besides, regional imbalance in the island between oil production and central government also leads to import and export. In 2014, APEX tanker data estimated that Indonesia's crude oil export was at 381,000 b/d, particularly to the regional buyer.

Indonesia's oil consumption in the last ten years outruns its oil production. With about 225 million of population and 910.000 b/d lifting in 2007, while the consumption was 1.3 million b/d at minimum, there was at least 400.000 barrel deficit. Such a vast deficit has occurred since 2004.

Minister of Finance, Sri Mulyani, states that in 2020 state budget plan, Rp. 137.46 trillion rupiahs were allocated for energy subsidy. The detail is as follows (1) Rp. 75.3 trillion for LPG and fuel subsidy; and (ii) Rp. 62.2 trillion for electricity subsidy. From 2015 to 2019, the realization of subsidy is fluctuating, but it annually increases by 4.6% on average. This increase is affected by basic macroeconomic development and government policy. In 2015-2017, there was a significant decrease in subsidy, from Rp.119 trillion in 2015 to Rp.97 trillion in 2017. Unfortunately, it increases again in 2018 to Rp. 153 trillion, it is estimated that the energy subsidy will cost Rp.142.5 trillion (Anwar and Siregar, 2019).

Indonesia's oil production continues to decrease in 2014 because there is no new big production project to compensate for the old fields' production decrease. The aging infrastructure and field show that the state will make efforts to fulfill short-term production targets. Indonesia's decreasing oil production and increasing domestic demand make this country withdraws from OPEC in 2009 and triggers increasing demands. International oil companies, especially Chevron and Total, dominate Indonesia's upstream oil sector. The state-owned company, Pertamina, should offset its requirement as a corporate and its mandate as a national oil company to fulfill domestic demands. Indonesia is reorienting energy production, from serving the export market to fulfilling increasing domestic consumption. Indonesia's energy industry has faced challenges in the last few years and regulatory and investment uncertainty.

Indonesia's primary energy consumption grows by 43% from 2003-2013, according to the government. This country's petroleum sector, despite the decrease, keep recording a higher portion of the energy mix, i.e., 38% in 2013. In the last decade, coal consumption increased by double, overrunning natural gas consumption and becoming the most consumed fossil fuel when Indonesia shifts to cheaper fuel. Indonesia aims to reduce its dependence on petroleum in its energy consumption portfolio to be 25% at maximum while increasing coal and natural gas portion by at least 30% and 22% in 2025.

3. ISSUE ON ENERGY SUBSIDY

Energy subsidy, particularly explicit or implicit subsidy for fossil fuel, has emerged as an international political agenda, not only because of budget policy or economic factor but also because of climate necessity (Whitley, 2013). The conventional view that is dominated by a group of international organizations, framed by liberal market narration where energy subsidy represents market mechanism deviance, distorts resources allocation and public goods procurement with fiscal effect, negative distribution, and environment. However, these actors begin to realize that, despite this seemingly strong policy issue, subsidy reform seems to be difficult to be done politically, and the political analysis stemming from the public choice approach has been developed, mainly by Victor (2009).

Coady et al. project that global energy subsidy in 2015 reaches $5.3 trillion or 6.5% of global GDP, where domestic subsidy contributes about half of the total subsidy and a quarter of global warming (Coady and Parry, 2015). At the global level, energy subsidy is estimated to reach $4.7 trillion (6.3% of global GDP) in 2015 and $5.2 trillion (6.5% of GDP) in 2017. (Baker, Newell, and Phillips, 2014; Lockwood, 2015; Meckling and Hughes, 2018). In an aggregate-level, the smaller global number for 2015 compared to the previous estimation occurred due to lower externality estimation (for instance, lower level of air pollution emission in China) and lower fuel consumption (compared to the previous projection), which reflects the majority of the updated data and regulatory policy changes (Chen and Lees, 2016; Shen and Xie, 2018; Bell, 2020). At the product and state level, many other factors often counterbalance, which significantly change energy subsidy estimation. The impact of recent energy (and carbon) pricing reform on a global level occurs in a limited manner. As expected, the annual total directly varies with global energy prices, especially oil (Lockwood, 2015).

Higher average oil price in 2018 forced the global fossil-fuel consumption subsidy value returns to its last level in 2014, highlighting incompleteness of pricing reform in the last few years. Recent data for 2018 exhibits the one-third increase of subsidy estimation value, becoming more than $400 billion. Estimation for oil, gas, and fossil-fueled- electricity has significantly increased, reflecting higher fuel prices (where artificially low end-user price increases the subsidy estimate value) (Matsumura and Adam, 2019).

Some OECD countries still subsidize particular fossil-fuel in the form of preferential tax or royalty and for nuclear energy. However, about 80% of the global subsidy is in the form of customer subsidy in non-OECD countries. Regarding absolute expenditure, some countries have historically dominated, in 2008, three countries (Iran, Saudi Arabia, and Russia) contribute almost half of the global total. Unsurprisingly, the leading energy producer and exporter is the giant actor of subsidy, where it tends to relate to fuel resources. Thus, Russia subsidizes gas but not oil, while most of Mexico's subsidy is for oil products, and in South Africa, the subsidy is for coal. However, it should be noted that China, India, and Egypt, where none of them is listed as top energy-exporting countries, are in the top six in 2008.

Overall, about 40% of subsidy is found in developing countries. To date, China provides the most massive subsidy in 2015 ($1.4 Trillion), followed by the US ($ 645 Billion), Russia ($551 billion), European Union ($ 289 billion), and India ($ 209 billion). In terms of region, developing countries in Asia contribute almost 40% of global energy subsidy, followed by the developed countries (27%), commonwealth countries (15%), the Middle East, North Africa, Afghanistan, and Pakistan (9%), Latin America/ Carribean (5%), Developing European Countries (3%), and Sub-Saharan Africa (2%).

Debates on conventional energy subsidy are dominated by a group of international

organizations associated with the liberal world order. World Bank, IMF, OECD, and IEA. These organizations have generated analyses with similar features or references that collectively add what so-called "free market" of energy subsidy, by focusing on fossil fuel. For these organizations,fossil-fueled energy subsidy removal is a part of economic reform and broader political agenda than Washington Consensus. The loan requirements from International Financial Institutions (IFI) applied to the oil product pricing and sector reform are a part of the bigger requirement that is undergone, especially in Latin America, Africa, and transitional countries since the middle of the 1980s (Wilson, 2015b).

In addition to general liberalization, some western countries and international organizations (especially IEA) also have their own specific energy policies. Since the 1980s, many OECD countries liberate their energy sector to various levels. Countries with the most liberalized market have considered a range of policy purposes, including low-cost and security of supply as the best solution for the entire global and regional energy market (Mitchel et al., 2001; Helm, 2005; Cherp and Jewell, 2011; Kuzemko, 2013; Dercon, 2015). During the 1990s and the early 2000s, there was substantial pressure on policy for national market integration, primarily through the Energy Charter Treaty (Stevens, 2005). State-owned oil companies (such as Russian's Gazprom) are viewed as a 'new star' in the rise of resource nationalism in the early 2000s, and the increase comes along with it in bilateral energy agreement (Stevens, 2005; Vivoda, 2009). From this perspective, subsidy covers the principal cost and increase domestic market demand, and therefore, globally.

However, the main argument explicitly stated by international organizations and donor states to decrease subsidy is based on three main impacts, namely, fiscal, distribution, and environment. Fiscal argumentation states that subsidy often significantly depletes the government's resources with high speculative cost considering that development needs in many countries where the subsidy is found. (Independent Evaluation Group, 2009). Then, out of 58 countries with the subsidy in 2010, 46 countries experienced budget deficit, as projected by (Piotrowski et al., 2010). In some contexts, the situation is even more extreme (Clement et al., 2013; Breisinger et al., 2019; Husaini, Puah and Lean, 2019; Khalid and Salman, 2019; Schaffitzel et al., 2019). In some Indian states, in the early 2000s, 50% of the state budget used subsidy for electricity, although most of them were powered by coal (Acharya and Sadath, 2017; Bhattacharyya and Ganguly, 2017; Jain, 2018; Yadav, Davies and Abdullah, 2018). Until 2008, Indonesia spends more on energy subsidy than for healthcare subsidy, education, social insurance, and defense (Sambodo and Novandra, 2019). In 2013, the subsidy was projected to spend about 20% of the total budget (Dartanto, 2013). Recently, Nigeria has spent more on subsidy than on education, healthcare, and social insurance (Nwachukwu and Chike, 2011; Osunmuyiwa and Kalfagianni, 2017).

Such fiscal stress has substantially increased in the last decade (Trachanas and Katrakilidis, 2013; Dell' Erba, Mattina, and Roitman, 2015). Rapid, sustainable economic growth in developing countries during the 1990s and 2000s, especially in China, has emerged as the main factor of international oil and coal price (Ou, Zhang and Wang, 2012; Wu and Zhang, 2014; Chen, Yu, and Kelly, 2016), with Brent crude's tenfold increase between 1999 and 2008 (Zhao et al., 2017; Zavadska, Morales and Coughlan, 2018). Higher price has put pressure on subsidy fiscal for energy importer to the point where a state can no longer protect the customers.

At the end of the 2000s, the developing countries passed half to three-quarters of the international price increase to their domestic market (Piotrowski et al., 2010). The international price increase has created reform even in countries where IFI poses limited policy impacts such as India. However, the rise of China and other developing economies

also encourages increasing demand for other commodities, and many energy importers also become the commodity exporters, especially Sub-Sahara African countries. Some African countries also experienced currency appreciation until the 2008 financial crisis (Edo, Osadolor and Dading, 2019), which will compensate for the increase of oil price in the US dollar. This fiscal reform, of course, may vary among the countries.

In some energy-producing countries, growth-driven energy demand increases have exceeded domestic production, such as China, that expects to import 80% of oil demand at the end of the 2020s and become the coal importer five years ago (Kong et al., 2018; Zhang et al., 2018). The Chinese government have carefully moved to more liberal energy pricing for decades (Leng et al., 2019), however, at the middle of the 2000s, there is still quite a considerable subsidy for petroleum product, especially gas (Lin and Jiang, 2011), and the reform has been expedited since 2005. Even Malaysia that is rich for oil and gas need to reconsider its energy policy, including subsidy (Solaymani and Kari, 2014). Energy subsidy exists in Malaysia since the 1980s. From 1983 until 2014, the retail price of each energy product was determined by the Automatic Pricing Mechanism (APM). Under APM, if the market price is higher than the retail, the government will subsidize the difference. This regulation makes changes in energy product retail price increasingly difficult (Li, Shi, and Su, 2017). It is mostly caused by a lack of political will and reticence to allow the energy product price increase following the APM. The government spends a high amount of subsidy (Hannan et al., 2018). In 2008, the expenditure for subsidy culminated, which was equal to 22% of revenue from the total oil export, exceeding the expenditure for procurement and service (Yusoff and Bekhet, 2016). In January 2014, when the government began to implement the planned energy subsidy reform, Incentive-based regulation (IBR) for determining electricity tariff was introduced along with a decrease in natural gas subsidy that would be adjusted gradually every six months (Husaini, Puah and Lean, 2019). This substituted the existing APM. At the end of the year, subsidy for RON95 and diesel was removed, and the retail price for gasoline and diesel is now determined monthly using a managed floating system. This mechanism uses price from the previous month as a reference to determine the fuel price for the next month. In September 2015, the CNG price for transportation was examined (Solaymani and Kari, 2014; Solaymani et al., 2015).

The global financial crisis and oil price increase worsen Malaysia's fiscal balance (Jalil, 2012). In 2009, Malaysia experienced economic contraction by 1.5% and biggest fiscal deficit since 1982 due to the issuance of two stimulus package equals to RM67 billion that aimed to boost the economy during the crisis and to increase subsidy (Prema-chandra Athukorala, 2010).

The converse, however, may apply for countries with newly identified energy reserves. For instance, oil discovery in Ghana (Kaku, 2018; Quartey and Abbey, 2018) and Uganda (Langer, Ukiwo, and Mbabazi, 2020) possibly open new subsidy for petroleum product.

The argument of distribution for reform is that subsidy is regressive in nature, particularly if it is compared to pro-poor expenditure potential (Piotrowski et al., 2010; Sivaram and Harris, 2016). For instance, IEA estimates that in 2010, part of the global subsidy that was received by 20% of the poorest citizen was only 6% for gasoline and diesel, 9% for electricity, and 10% for gas (International Energy Agency, 2012). Out of $22.5 billion spent by India for fossil fuel in 2010, less than $2 billion that was helpful for 20% of the poorest citizen. Such a pattern is similar to what occurs in Indonesia, Thailand, Pakistan, and South Africa, and slightly better in China (Vedavalli, 2007).

Political dynamics of the state formation may also account for this confusing pattern, that energy subsidy tends to be higher in Asia than that in Africa (El-Katiri and Fattouh, 2017). Sub-Saharan countries were more likely to undergo oil price increase to diesel, gasoline, and kerosene during the 2000s (Teljeur, Chetty and Hendriksz, 2017). Data from GIZ (2012) also show that Asian retail price for diesel is 10-15 US cent cheaper than African retail price since the middle of the 1990s. Political needs may become one of the potential explanations for this condition. The most noticeable difference between Southeast Asia and Sub-Sahara Africa lies in broad investment in rural areas, including road, farmer, etc., which in turn, is a political strategy (Bond and Dembele, 2012; Sullivan, 2014).

4. INDONESIAN CASE LAWS

Indonesia provides an interesting, relevant case to examine the implication of energy subsidy. This state has become an oil and gas producing- country since the late 19th century and remains to be one of the biggest subsidy providers for fossil fuel at the global level. Administrative control of the petroleum price is used in various period of time for decades. Like many other post-colonial governments, the price was controlled under Sukarno's regime, and according to Soesastro (1989: 868) in the early 1960s, the petroleum product price "was tightly regulated and distorted due to political reasons." In 1966, while Soeharto controlled the New Order regime, fuel subsidy was removed or drastically reduced. This provoked criticism from students, yet the decision was still applied (Soesastro, 1989; Fausti, 1993; Mourougane, 2010; Hasan, Mahlia, and Nur, 2012). There is an urgent need to remove fuel subsidy in Indonesia due to a severe budget deficit and exacerbating revenue distribution. 72% of the subsidized fuel was enjoyed by 30% of the richest people, who have consumed 63.8% in average of total subsidy between 1998 and 2013 (Reid, 2001; Dartanto, 2013).

Soeharto's regime was characterized by a combination of monetary and fiscal discipline (Cassing, 2000; Safitri, 2012) and forms of patronage, which was personalized through military and other networks (Webber, 2006). This autocrat government highlighted "authority centralization and presidency protection" by bringing bureaucracy and political parties were distributed in a controlled corporative network" (Eklof, 2004). Soeharto exploited natural resources for political protection, gave concession for logging and farming, provided loans and control of company and bank to his family, business partner, and politics and military elites (Mietzner, 2006). However, the result was surprising by rapid and equal growth, increasing agricultural products, and particularly in the 1980s, promotion of new manufacturing sectors (Erb, Faucher and Sulistiyanto, 2005; Vatikiotis, 2013).

As noted, regarding the way of power acquisition, Soeharto reduced energy subsidy as a part of fiscal and monetary reform to counter hyperinflation. However, when the international price began to soar in the first oil boom in 1973-1974. Domestic fuel price began to be left behind (Soesastro, 1989, p. 867). It is mostly caused by lack of political will and reticence to allow the energy product price increase following the APM, the government spends a high amount of subsidy (Warr and Yusuf, 2014), along with the increase in subsidy for fertilizer and food (Fadhliani, Luckstead, and Wailes, 2019). The ratio between domestic oil price and Sumatra's crude oil in the international market drop by 76% between 1971-1975, and in 1980, domestic kerosene price was only 18% of the international price. The effective subsidy for petroleum products (based on price gap) was estimated to cost 5.4% of GDP in 1980/81 (Pitt, 1985). In 1981/82, fuel subsidy has grown to more than 10% of the state budget (Bevan, Collier and Gunning, 1999, p. 255). In the late 1970s, those numbers seemed to draw Suharto's attention, who made a balanced budget as the economic management foundation of the New Order. The government applied this framework to bring the parliament

into a subsidy reform attempt (Soesastro, 1989, p. 868). Budget consideration became acute when the second oil boom ended in 1982 (Fukuoka, 2012), which was followed by a significant decrease in fuel subsidy and removed in the 1980s when the government carried out economic deregulation and shift from oil and gas dependence. (Mallarangeng and Liddle, 1996; Mallarangeng, 2002).

Political analysis of Suharto's government showed two contradicting dynamics over time, particularly since the late 1980s. One of them is Suharto's change from a dominant figure in the military during the 1970s to the 'sultanate' regime, i.e., personal dictatorship, at the end of his regime in 1998 (Aspinall, 2005). However, continuous attempts on allowed opposition limit build a larger space for independent bases of political powers over time, including Islamic group, student, and the followers of Megawati Soekarnoputri. According to Aspinal (2005: 4), "during the decade before the fall, there was an unequal yet dramatic increase in people's turmoil and opposition." Vatikiotis (1998) argued that the key step in weakening Soeharto's political domination is by allowing the establishment of Indonesian Association of Muslim Intellectuals (ICMI) in 1990, which became the alternative political power base against military advantages

Some observers' view that by the fall of Soeharto, Indonesia was weak, fragmented, and politically unstable (Smith et al., 2003). Indonesia had three heads of state for years. The formal political structure and decentralized government, yet many of the patronage networks keep existing and reset in a more fragmented system with weaker central control under the next government (Smith et al., 2003). More independent political power bases had been opened along with forms of autonomous patronage in bureaucracy, including at the regional and local levels. (Tomsa, 2015).

The next government found it difficult to maintain expenditure on fuel subsidy. The absence of a gasoline subsidy during Soeharto's final years was in contrast with its increase in the years soon after his fall. The fuel price, not to include kerosene, increased in 2002, and in January 2003, an attempt to remove subsidy was made, yet it was undone after harsh protests (Clement, Hong-Sang, and Gupta, 2007). Indonesia's attempts in subsidy reform try to follow the strategies relating to public choice analysis, and particularly the development of alternative administration instrument for redistribution (Skovgaard and van Asselt, 2019) Limited reform package was introduced in 2005 and 2008, which increased the price yet the subsidy remains exists, it also includes cash transfer, educational funding, village infrastructure, and healthcare insurance for some domestics (Grosh et al., 2008, p. 442).

On 31 December 2014, President Joko Widodo announced the removal of subsidy for gasoline Premium and introduced a 'fixed' subsidy which determined the diesel fuel at Rp.1000, - (US$ 0.08) lower than the market price. Because the global oil price was low, this decision lowered the gasoline and diesel on 1 January, and on 19 January, the price increased again. However, the kerosene price remains the same. Such a reform, along with low global oil price, is expected to save the budget for about Rp. 195 trillion (US$ 15.6 billion) from the 2015 state budget's allocation of Rp. 276.0 trillion (US$ 22.1 billion) for petroleum subsidy. Saving equals 9% of the government's planned expenditure. 2015 State budget revision was prepared and finalized quickly, increasing the budget for infrastructure from Rp. 190 trillion to 290 trillion (from US$ 15.2 billion to US$ 23.2 billion).

2015 state budget allocated Rp. 276.0 trillion (US$ 22.1 billion) for oil subsidy and Rp 68.7 trillion (US$ 5.5 billion) for electricity subsidy, of the total energy subsidy commitment of Rp. 344.7 trillion (US$ 27.6 billion). Following a reform in November 2014 and January 2015, 2015 State budget had dramatically reduced allocation for petroleum

subsidy to be Rp. 81.8 trillion (US$ 6.5 billion) and slightly increased allocation for electricity subsidy to Rp. 76.6 trillion (US$ 6.1 billion).

Known by wasteful fossil fuel subsidy, Indonesia performs subsidy adjustment for fourteen times. Indonesian case provides important knowledge about political challenges of reform in developing countries in the context of personal interest, corruption, strong interest group, and poor citizens who are prone to the indirect impact of subsidy decrease. The first attempt of reform after the Asian financial crisis triggers harsh protests over fuel increase and rampant corruption, contributing to the overthrow of Suharto in 1998. Conversely, the reform brought by President Jokowi in 2015 was warmly welcomed by wide support. The success of reform, which is defined here in terms of its durability, is tested from two perspectives — social acceptance and economic effectiveness. While the literature on fossil fuel subsidy covers more reform case studies, there is a shortage of theory on factors required to gain reform success. Further study needs to be done to fill the gap by analyzing the supporting factors of subsidy reform.

5. CONCLUSION

Indonesia is a case study depicting political challenges in implementing fuel subsidy reform in a developing country. Such a subsidy has significantly affected Indonesia's energy policy, development, and economic soundness. Indonesia requires proper energy availability to support economic activities and the social dynamics of the community. However, various challenges and obstacles stand before attempts to fulfill energy needs. One of the challenges is the increasing crude oil production, while the acceleration of renewable energy- which is expected to be the new 'backbone' of national energy- is still suboptimal. Known by wasteful fossil fuel subsidy, Indonesia makes subsidy adjustments for fourteen times. Indonesian case brings important knowledge of political challenges on reform implementation in developing country that is prone to the indirect impact of subsidy decrease. The first attempt of reform after the Asian financial crisis triggers harsh protests over fuel increase and rampant corruption, contributing to the overthrow of Suharto in 1998. Conversely, the reform brought by President Jokowi in 2015 was widely supported. There is a shortage of theories about factors needed for reform success. Further study needs to be done to fill the gap by analyzing the supporting factors of subsidy reform.

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