

Research Article

Analysis of Governance Complexity on Subsidized LPG in Indonesia: A Three-level Institutional Approach

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Abstract.

Subsidized liquefied petroleum gas (LPG) policies aim to ensure the efficient and effective supply and distribution of LPG so that the benefits of subsidies are on target. However, there is a gap between planned policies and actual reality. However, in order to achieve better governance of subsidized LPG policies, the causes of inconsistencies must be analyzed by the government. In this paper, we analyze the governance of subsidized LPG policies based on an institutional theory approach using the three levels of analysis and outcomes framework to find out the causes of policy inconsistencies by exploring policy structures and subsidized LPG management. The author proposes that this framework should be integrated into the improvement of subsidized LPG management and strategies. Further research is needed to analyze the impact and consequences of LPG transformation policies to estimate the benefits and challenges of implementing policy reforms.

Keywords: liquid petroleum gas, subsidy policy, governance, institutional analysis

1. Introduction

The Government established the Kerosene Conversion Program to Liquefied Petroleum Gas (LPG) 3 kg through Presidential Regulation 104/2007 to reduce public dependence on kerosene fuel and the burden of subsidies on state expenditure (1). The conversion program has four main objectives: (1) energy diversification to reduce dependence on fossil fuels; (2) government budget efficiency; (3) reduction of subsidized kerosene abuse, and (4) increased access to clean and efficient energy (2). Efficient and effective management of LPG supply and distribution will support energy diversification, optimization of government budgets, prevention of abuse, and use of targeted subsidies.

Subakdo and Nugroho explain LPG (Liquefied Petroleum Gas), elpiji, as a trademark of Pertamina in Indonesia. LPG is a gas fuel consisting of liquefied propane gas (C₃H₈)

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and liquefied butane (C₄H₁₀). Pertamina has a long history of selling LPG in the form of 12 kg and 50 kg tubes to the community (3). Furthermore, since the Government commissioned Pertamina to carry out this program and to be the only provider of LPG products in Indonesia, LPG products have appeared in the form of subsidized 3 kg tubes.

The Government has set Retail Selling Prices (“HJE”) from LPG Bulk Freight and Filling Station (“SPPBE”) to 3 kg tube LPG Agents and Sub-Agent, including subsidies of Rp. 4,250/kg, so a 3 kg tube refill will cost Rp. 12,750 (4). Therefore, the determination of the LPG 3 kg price does not follow changes in international oil prices but is based on a Government decision.

Budya and Yasir Arofah have researched the kerosene conversion program to LPG to evaluate efforts to provide clean energy and reduce the burden of government subsidies (1). The results of the study stated the success of the conversion program thanks to the assignment of State-Owned Enterprises (BUMN), social approaches, and critical implementations, namely infrastructure and funding support, target area determination, free conversion equipment packages, media communication, as well as collaboration with former agents and suppliers of kerosene.

The result of kerosene consumption shrunk dramatically from 10 million kiloliters (2006) to 0.8 million cl (2015), reduced by 92%, and household LPG consumption rose from 1.1 million tons (Mt) (2006) to 6.3 Mt (2015). As a result, total subsidy savings between 2006 and 2016 by comparing the costs of kerosene and LPG subsidies, including the cost of starter packages, are reported as Rp. 216.4 trillion (4).

The Government has implemented a 3 kg subsidized closed LPG tube distribution system to avoid misuse by non-target communities through user designation and control cards (KAR, 2014). Nevertheless, due to the unprepared database of target communities, control cards, and supporting information technology infrastructure, LPG 3 kg tubes is still openly distributed to the community (5).

As a result, many consumers who previously used 12 kg tube LPG migrated to 3 kg tube LPG users because it was cheaper (the price of a 12 kg LPG tube refill was Rp. 120,000 or Rp. 10,000/kg). Even the high price difference between subsidized and non-subsidized LPG is exploited by black market refillers and consumers willing to buy from them, so it is dangerous for safety (4).

This abuse is caused by the widespread illegal refilling of non-subsidized tubes by taking LPG from 3 kg tubes, one of which was carried out by a rogue LPG gas sub-agent in Kampung Babakan Garapan, Bogor, West Java. The suspect had transferred LPG gas contents from a subsidized 3 kg tube into a 12 kg tube and 50 kg non-subsidized using

a syringe, and then a fake seal was installed. Then, these LPG gas tubes of 12 and 50 kg are sold to stalls and companies at regular prices with a monthly profit of Rp 150 million (6). In addition, subsidized 3 kg tube LPG transfer occurred in the North Meruya region, West Jakarta. The suspect sells the price of 12 kg LPG tube illegal results at market prices. 12 kg LPG tubes are sold at Rp 140,000, and 3 kg LPG tubes are purchased at Rp 17,000,- where one 12 kg LPG tube can be filled with four 3 kg LPG tubes (7). LPG Subsidy Policy Tube 3 kg becomes ironic, initially carried out to reduce subsidized energy abuse.

Andadari and his friends evaluated the impact of the LPG conversion program on energy poverty reduction (8). The research was carried out qualitatively using household surveys in all urban, suburban, and rural areas. The study's results stated that the program effectively drove a significant shift in the use of LPG from kerosene with rising prices. However, the conversion program failed to reduce energy poverty but effectively reduced extreme energy poverty. In addition, middle and high-income households living in urban areas are the most significant benefits of this program. Unfortunately, the conversion programs are enjoyed by middle and high-income households, so the benefits of subsidies are off-target.

Furthermore, the expansion of the kerosene conversion program to 3 kg tubes of LPG and the natural growth of community consumption needs, including its misuse by non-target communities, increased the need for 3 kg tubes of LPG. As a result, there is a scarcity of 3 kg tubes of LPG. At the same time, the distribution quotas are limited and can only be added if it gets additional quotas from Pertamina and Government's approval (9).

The addition of the 3 kg tube LPG subsidy quota volume resulted in an increase in the subsidy burden from 2008 to 2018, which continued to increase with an average growth of 31.05% per year so that it became the most significant component of energy subsidies of Rp58.14 trillion or 37.87% of Indonesia's total energy subsidies (10). This increase was due to the consumption of LPG 3 kg tubes which increased to Rp 6.54 billion in 2018, or 11.9 times compared to kerosene consumption in 2008. Consequently, the financial burden is increased due to the cost of 3 kg tube LPG subsidies that exceeded the cost of kerosene subsidies in the past. Therefore, LPG Subsidy Policy Tube 3 kg becomes ironic, initially carried out to reduce the country's financial burden due to kerosene subsidies (Figure 1).

Moreover, the Russia-Ukraine war has increased the price of International LPG, which impacts Indonesia, where LPG is mainly imported from abroad. Aramco Contract Price (CPA) has reached 775 USD/metric tons, up about 21% of the average CPA price

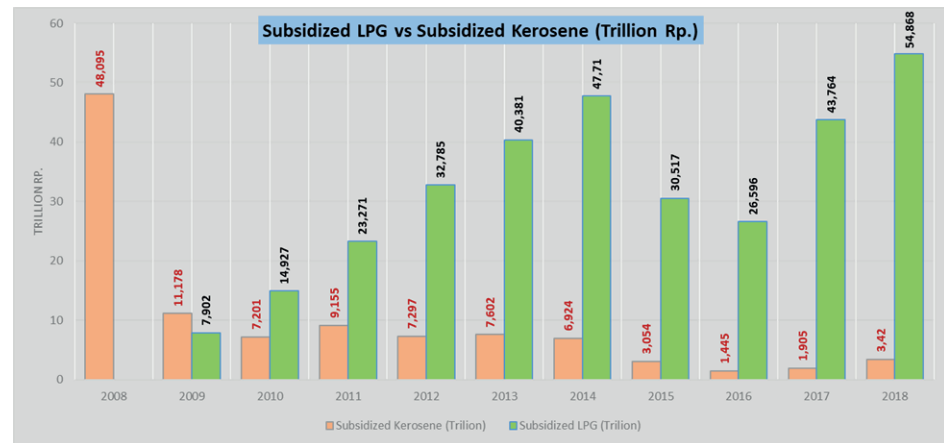


Figure 1: Comparison between subsidized LPG and Kerosene (2008-2018) (BKF, 2020).

throughout 2021. The price increase has prompted Pertamina to raise the Non-Subsidies LPG's price starting February 27, 2022, from Rp 13,500/kg to Rp 15,500/kg (11). The increase in international prices of LPG adds to the weight of the cost of 3 kg tube LPG subsidies that the Government must budget.

The occurrence of inconsistencies happened within subsidized LPG policies. From policies established by the Government, implementation of supply and distribution by Pertamina, and misuse of subsidized LPG by business Entities and non-targeted communities that push demand, resulting in unintended consequences like rampant abuse of subsidized LPG, benefits of subsidies not for target communities, and a swollen subsidy budget.

Kraft and Furlong state that institutional theory emphasizes the formal and legal aspects of government structures, covering how people in organizations relate to each other and with people in other organizations through rules governing their behaviour (12). In comparison, Elinor Ostrom explained that institutions are a series of regulations used by individuals to organize repetitive activities that produce impacts that affect a group of individuals and other groups (13). Many institutions influence public policy, including markets, small and large companies, central, provincial and regional governments, political parties, interest groups, and foreign political influence.

Eliantor Ostrom introduces a framework for analyzing institutional management, the Three Levels of Analysis and Outcomes. This framework is a model of the regulatory hierarchy that together influences actions taken by actors and related institutions based on the arena of action and the situation (13). The Three Levels of Analysis and Outcomes Framework includes three regulatory levels: Operational rules, Collective-choice rules, and Constitutional rules. Operational rules govern action decisions carried

out by the community and individuals daily. Collective-choice rules govern decision-making by authority holders to manage institutions and exercise their authority. Finally, constitutional rules are regulations governing Collective-choice rules containing policies and procedures for regulating institutions and businesses so that policies can be implemented. The authors changed Constitutional to Government and Collective-choice to Corporation to facilitate analysis and understanding in this paper.

This paper's purpose is to analyze the governance of subsidized LPG policies using a multilevel approach to find out the causes of inconsistencies in subsidized LPG policies. For this reason, the subsidized LPG policy governance analysis is based on an institutional theory using the Three Levels of Analysis and Outcomes Framework. We are exploring rules established by the government (Government level), rules implemented by Pertamina (Corporation Level), and the rules of the business Entities and target communities that sell and use subsidized LPG (Operational Level).

Using this framework will bridge the analysis gap in identifying challenges faced by the Government that is urgently needed in developing management strategies for improving governance of subsidized LPG policies. The preparation of this paper is very relevant to the current situation and conditions in Indonesia, where public policy reformulation is needed to improve and increase the effectiveness of public administration and increase public trust and support for the Government..

2. Methods

We conducted qualitative research through literature studies in which data were collected from journals, books, government documents, articles, and other works of literature. The data is then selected, edited, and analyzed using a descriptive analysis approach.

To understand the causes of policy inconsistencies in subsidized LPG policies, we analyzed the influence of subsidized LPG rules using the Modification of the Three Levels of Analysis and Outcomes Framework, which resulted from Ostrom's thinking (13) (Figure 2).

Based on this framework, we analyze the legislation governing the supply and distribution of subsidized LPG at the Government Level. Given that the misuse of subsidized LPG increases supply requirements so that the subsidy budget swells (Government Situations), we want to know how the legislation (Government rules) regulates the prohibition and sanction of the abuse of subsidized LPG and how it affects the Corporation Level and Operational Level.

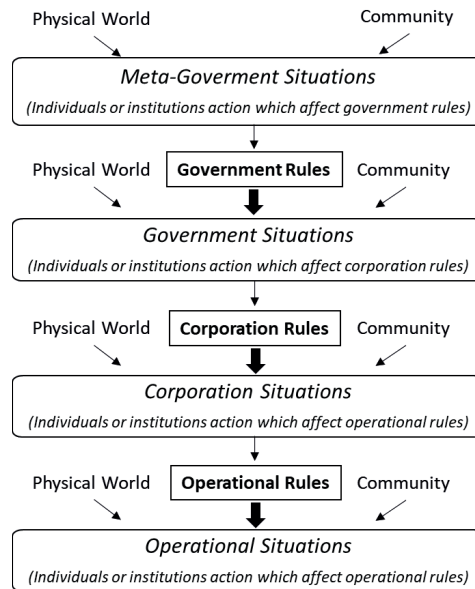


Figure 2: Modification of the Three Levels of Analysis and Outcomes framework (13).

Next, on the Corporation level, we analyze the cooperation arrangements for the supply and distribution of subsidized LPG between Pertamina and business Entities (Corporation Rules). Given that supply quotas increase due to supply scarcity, we want to know how Pertamina and the business entity (Corporation Operation) work together to regulate the supply and distribution of subsidized LPG to the target community.

Then at the Operational level, we analyze the implementation of subsidized LPG sales by business entities and their use by the public. Given the many cases of abuse of subsidized LPG by business entities and non-target communities (Operational situations), we want to know how the business entities carry out the sale of subsidized LPG, and how the target communities use subsidized LPG every day (Operational Rules).

3. Results and Discussion

3.1. Government Level

3.1.1. Rules Analysis of Prohibition and Sanctions on Subsidized LPG Abuse

Ilyas presents several cases of subsidized LPG abuse by business entities that often occur and can be grouped into three types (14):

1. Subsidized LPG gas content reduction activities are carried out by the LPG Fuel Refueling Station (“SPBE”) so that the weight is less than specified.

2. The business entity removed the contents of the 3 kg LPG gas tube, then transferred them to the 12 kg LPG tube, called illegal refilling, and sold them to the public and industry.
3. Consumer losses from reduced volume of subsidized LPG are known after use since it was run out fast. Generally, when using regular, a 3 kg LPG gas tube will run out within seven days.

Sayyida states that transferring and injecting 3 kg LPG gas into 12 kg LPG gas tubes using regulators is prohibited. Because illegal refilling does not comply with the Standards of Indonesian National ("SNI"), which have been determined and ruled by legislation (15). Considering LPG gas filling should only be carried out by LPG Fuel Freight and Refueling Station ("SPPBE"), not individuals. Therefore when illegal LPG gas size 12 kg is sold and not following the required standards, it risks leaking and exploding, thereby endangering the safety and security of the community.

Therefore, the Government has issued various legislation to regulate the prohibition and sanction of misuse of subsidized LPG (Table 1). Furthermore, the legislation is used as a reference for monitoring and supervision by the Central Government, Local Government, Police, and Pertamina on SPPBE, agents, and sub-agents who obtain permission as distributors from Pertamina.

Our evaluation shows that regulations already ban the misuse of subsidized LPG by business entities and non-target communities at the Government level (Table 1). However, these published policies need to be more mutually supportive and detailed regulations so that if they are not, they are potentially understood differently at the corporation and operational levels.

3.1.2. Situation Analysis of Rules' Effects on Corporation and Operational Levels

Ilyas explains that the factors causing a criminal offence to reduce the contents of the LPG 3 kg gas volume by transferring the contents of 3 kg LPG tube to the 12 kg LPG tube are caused by unhealthy competition between business actors. There is also a price disparity between subsidized LPG and non-subsidized LPG, as well as the desire of business actors to benefit more (14).

Aryadi and friends also highlight the behaviour of non-targeted communities using subsidized LPG (16). They explained the scarcity of LPG 3 kg due to a lack of government oversight of the community to prevent the less self-awareness that LPG 3 kg

TABLE 1: List of Legislation & Regulations related to Prohibition and Sanctions of Subsidized LPG Abuse.

Legislation & Regulation	Content
Article 53 letters b and d of Law Number 22 of 2001 concerning Oil and Gas.	Everyone who does: b. Transportation, as referred to in Article 23 without a Carriage Business License, is convicted with a maximum prison criminal of 4 (four) years and the highest fine of Rp.40,000,000,000 (forty billion rupiahs); d. Commercial, as referred to in Article 23 without a Commercial Business Permit, is convicted of a criminal offence, the longest prison of 3 (three) years, and the highest fine of Rp30,000,000,000 (thirty billion rupiahs).
Article 40 number 9 of The Job Creation Act Number 11 of 2020 amends Article 55 of Law Number 22 of 2001 concerning Oil and Gas	Everyone who abuses the Transport or Commercial Fuel Oil, gas fuel, or liquefied petroleum gas subsidized by the Government is sentenced to a prison criminal of at most 6 (six) years and the highest fine of Rp.60,000,000,000,- (sixty billion rupiahs).
Article 7 letter d of Law Number 8 of 1999 concerning Consumer Protection	Obligations of business actors to guarantee the quality of goods or services produced or traded based on the provisions of applicable quality standards for goods or services
Article 8 paragraph (1) letter a Law Number 8 of 1999 concerning Consumer Protection	Prohibited acts for business actors to produce or trade goods or services that do not meet or do not meet the required standards and statutory provisions
Article 62 paragraph 1 of Law Number 8 of 1999 concerning Consumer Protection	Article 8, Article 9, Article 10, Article 13 paragraph (2), Article 15, Article 17 paragraph (1) letter a, letter b, letter c, letter e, paragraph (2), and Article 18 is sentenced to a prison criminal of at most 5 (lima) year or a criminal fine of at most Rp 2,000,000,000.00 (two billion rupiahs)
Article 113 of Law No. 7 of 2014 concerning Trade	Business actors who trade goods that do not meet SNI, technical requirements, or qualifications, as referred to in Article 57 paragraph (2), will be convicted with a prison criminal of at most 5 (five) years and criminal fines of at most Rp.5,000,000,000.00 (five billion rupiahs).
Article 13 paragraph 2 and Article 14 of Presidential Regulation Number 104 of 2007 concerning Provision, Distribution, and Determination of 3 Kilogram Tube Liquefied Petroleum Gas Prices	Business entities and communities are prohibited from using 3 kg tube LPG for households and micro businesses contrary to statutory provisions. Business entities and communities that violate these provisions are subject to sanctions under the laws and regulations.
Article 26 Regulation of the Minister of Energy and Mineral Resources Number 26 of 2009 concerning Provision and Distribution of Liquefied Petroleum Gas	Every LPG marketed and circulated must meet the standards and quality of (specifications) LPG determined under the laws and regulations.

is subsidized by the Government so that it is intended for the poor. Furthermore, the absence of a ban and sanction on subsidized LPG by non-targeted communities results in confusion and unrest among the community due to limited 3 kg tubes of LPG stocks.

Therefore, Arya and friends explain that the obstacles faced by the Police are legislation that needs to clearly and expressly govern the prohibition and sanctions of using subsidized LPG by non-target communities (16). The investigators can only indict business entities for LPG transportation and sales misuse, not for the utilization of subsidized LPG by non-target communities. In Padang, the Police can not indict the

restaurant owner who utilizes subsidized LPG since there is no sanction for the utilization of subsidized LPG by non-target communities.

Our evaluation finds no sanction implementation for the use of subsidized LPG by non-target communities. To date, the Government has only appealed to the public that subsidized LPG is only for the poor. They hope people are aware and understand that LPG is subsidized only for use by the poor. However, this does not stop all parties involved in providing and distributing subsidized LPG and the public from seeking personal gain.

3.2. Corporation Level

3.2.1. Rules Analysis of Pertamina Cooperation with Business Entities

Subakdo and Nugroho explain that the LPG supply chain system from Pertamina is a network used by Pertamina to manage activities that begin from production (inbound) to the use of LPG at the consumer level (Figure 2) (3). First, on the supply chain side of raw materials to producers (inbound), LPG is obtained from supply sources such as Pertamina’s LPG refinery, private refineries, and imports from LPG-producing countries. Next is the manufacturer’s supply chain to the consumer (outbound), where SPPBE sends the filled LPG tube to the agent. Then the agent distributes the LPG tube that has been filled to the sub-agent. Furthermore, the sub-agent has the task of distributing LPG tubes to consumers.

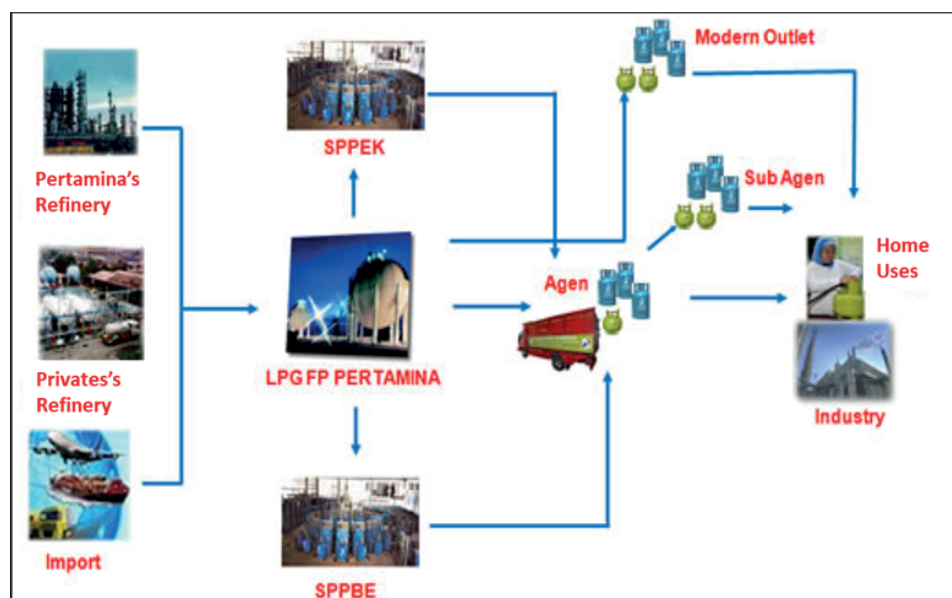


Figure 3: LPG Supply Chain System (Subakto dan Nugroho, 2016).

Subakdo and Nugroho describe the producer-consumer supply chain (outbound) in the supply and distribution of 3 kg LPG implemented by Pertamina consisting of (3):

1. LPG Bulk Freight and Filling Station (“SPPBE”) is a business unit owned or managed by Pertamina or a private legal entity transporting, filling, and handing over LPG tubes under the conditions and work procedures specified by Pertamina in the SPPBE establishment agreement. The SPPBE type consists of the following:
 - (a) SPPBE Private is a privately owned filling plant tasked with transporting, filling, and handing over LPG tubes to agents appointed by Pertamina. LPG stock in SPPBE belongs to Pertamina (consignment system). Every month in SPPBE, stock checking is carried out, which calculates the amount of merchandise stock to be adjusted to the accounting records in the business.
 - (b) SPPBE COCO is a filling plant whose ownership and management are carried out by Pertamina. Before the conversion program, Pertamina only relied on private SPPBE to fill, transport, and hand over LPG tubes to agents appointed by Pertamina.
2. LPG agents are legal entity business units that exchange LPG tubes that have been refilled in SPPBE/SPBE through a loading order mechanism, serving the sale of refilled 3 kg LPG tube and the initial sale of the first 3 kg LPG tube. All these activities are conducted according to the agent appointment agreement by Pertamina. LPG agents are legal entities (Companies or Cooperatives). Agents buy LPG in cash to Pertamina, with the pick-up location in the Pertamina LPG storage facility or SPPBE.
3. LPG sub-agent is a business entity with a business license, is tasked with distributing subsidized LPG to consumers, and is under the management of an LPG Agent.
4. The LPG target consumers of 3 kg in this closed system are households and micro businesses that previously used kerosene. Furthermore, Presidential Regulation No. 71 of 2021 also targets fishermen and farmers.

Hamzah and friends state that Pertamina determines all supply chain mechanisms. Pertamina began by assigning agents, establishing sub-agents, and determining daily quotas (17). The Municipal/District Industry and Trade Service acts as a government representative in charge of issuing approval in the form of a recommendation letter if there are people wishes to become Pertamina’s working partner as a subsidized LPG

agent or sub-agent. Besides that, The Municipal/District Trade and Industry Service oversees sales by the sub-agent to match the Highest Retail Price (“HET”), which is the selling price of LPG in the area or region determined by the Provincial or Municipal/District Government of the Regency.

Ramadan and friends state that the issues associated with subsidized LPG are challenging because they are complex (18). Many parties, namely the private sector and the communities involved, are active owners of the LPG Bulk Filling and Freight Station (SPPBE), agents, sub-agents, and retailers.

Nurbani explains that according to Regulation of the Ministry of Energy and Mineral Resources No. 26 of 2009, the implementation of the distribution system was carried out in private by separating the subsidized LPG Tube (3 Kg) and non-subsidized (5 kg, 12 kg, and 50 Kg) to avoid misuse of subsidized LPG (Figure 3) (19). The Government aims to provide a sound distribution system of 3 kg LPG for target communities. Therefore determination of SPBBE locations is the most critical key to ensuring adequate supply with minimum distribution costs as a reference in regulating the region area of supplying and distributing subsidized LPG to agents and sub-agents to serve consumers.

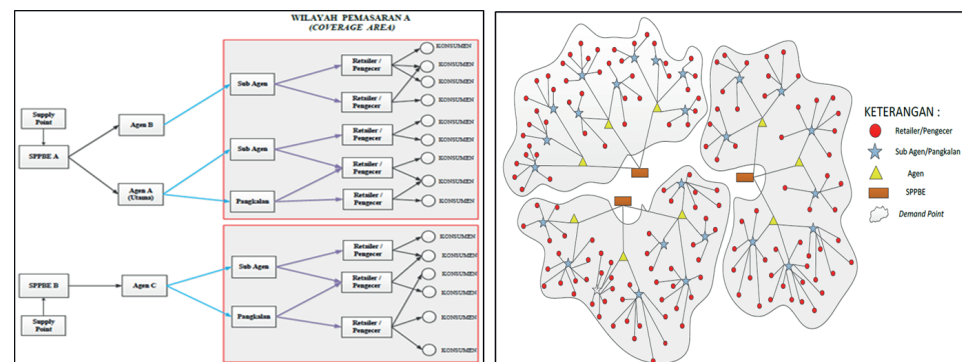


Figure 4: Closed LPG Distribution System (Nurbani, 2020).

Since 2014, Pertamina has already had a Distribution Monitoring System for 3 kg tubes of LPG (SIMOL3K), which digitally oversees the supply and distribution of 3 kg tubes of LPG by agents and sub-agent with an official permit holder from Pertamina (20). Then, Pertamina already had a Cashless Payment System to ensure non-cash transactions on LPG agents and sub-agents following local governments’ Highest Retail Price (“HET”) (21)

Anggara and Abdullah explain that when there is a scarcity and increase in subsidized LPG prices, Pertamina immediately follows it up based on reports from communities, the Central Government, the Local Government, or Police (22). Furthermore, the Municipal/District Trade and Industry Service will terminate the business relationship

if some agents or sub-agents violate established regulations. Even in severe cases, they are ordering Pertamina to revoke the business license. However, coordination between Pertamina, the Provincial Government and the Municipal/District Government only occurs when scarcity and price increase problems occur. Therefore, they should avoid the recurrence of the same problem by anticipating potential problems.

Lestari and friends also explain that the agent should archive every subsidized LPG sale to a sub-agent (23). Next PT. Pertamina and the Municipal/District Trade and Industry Service will conduct a surprise inspection by going to the agent to check the sales report. They stated that this supervision should have been conducted more frequently because many agents and sub-agents still sell above the HET price. For this reason, they stated that cooperation with the community should also be carried out to ensure that subsidized LPG was on target and sold at HET prices.

Our evaluation shows that Pertamina conducts collaborative supervision of the supply and distribution of subsidized LPG by agents and sub-agents through the SIMOL3K application. In addition, Pertamina uses the database in the SIMOL3K application to coordinate with the Central Government, Local Government, and Police regarding the potential misuse of subsidized LPG. However, Pertamina cannot anticipate problems with scarcity or price increases on the market, so they depend only on the reports from the communities, Government, or Police after the problem occurs.

3.2.2. Situation Analysis of Rules' Effect on Operational Level

Ismail explains that based on agreed cooperation arrangements, the provision and distribution of subsidized LPG are carried out as follows (24):

1. Pertamina is responsible for managing subsidized LPG allocations for agents, monitoring the distribution of agents and sub-agent, providing agent scheduling instructions to SPPBE, and drafting regulations. Pertamina regulations related to distribution include: sales to match the highest retail price, may not channel subsidized LPG out of the distribution area, may not hoard, and channel subsidized LPG only to the poor, micro-businesses, target fishermen, and target farmers.
2. LPG Bulk Freight and Filling Station ("SPPBE") carries out LPG tube transport and filling activities according to sizes, including 3 kg, 12 kg, 50 kg, and according to LPG products (bulk). Filling activities include receiving empty tubes from agents,

sorting tubes (broken or returned tubes), filling LPG to sorted tubes, and transporting LPG tubes to be sent to the agent accompanied by a Letter of Delivery (“SPP”) or LO (Loading Order) as evidence.

3. The agent is directly related to Pertamina regarding the timetable instructions for taking 3 Kg LPG tubes from SPPBE, called the SPPBE’s Schedule Agreement (SA-SPPBE), and making payments for refilling or purchasing LPG tubes at SPPBE. Based on the SA-SPPBE, the agent will send an empty tube to the SPPBE designated by Pertamina and receive the LPG-filled tube from SPPBE and the SPP or LO documents. After receiving the filled LPG tube, the agent directly distributes the LPG tubes to the sub-agents, which is the agent’s partner. Since subsidized LPG must be used up according to the amount in the LO, the agent will schedule the distribution for sub-agents based on volume and schedule in the SA-SPPBE called the Sub-Agent’s Schedule Agreement (SA Sub-Agent). Agents must report their daily receive and distribution to sub-agent through the SIMOL3K application managed by Pertamina.
4. Sub-agent will take and purchase from its agent with an agreed amount through the Sub-Agent’s Schedule Agreement (SA Sub-Agent), the schedule for sending 3 kg tubes of LPG from agents to sub-agents based on volume and schedule in SA-SPPBE. In addition, sub-agents must report their daily receive through the SIMOL3K application managed by Pertamina. Next, the sub-agent will distribute to retailers who are partners of the sub-agents then this transaction will be recorded in their logbook.

Our evaluation shows that Pertamina cannot oversee agents, sub-agents, and retailers’ behaviour. As a result, these business entities potentially make subsidized LPG stockpiles, sell to non-target communities, and sell out of the already restricted distribution territory, as both the agents and sub-agents are only filled reports for receiving LPG tubes on SIMOL3K application. Not to mention that the agent and sub-agent are not routinely reporting the proceeds of the sale and the sub-agents logbook has yet to be linked to the SIMOL3K application. Consequently, the supply and needs of agents and sub-agents become invisible and not supervised by Pertamina.

3.3. Operational Level

3.3.1. Rules Analysis of the Sales and Utilization of Subsidized LPG

Hamzah and friends state that the Regional Government has the authority to issue the Highest Retail Price ("HET"), taking into account regional conditions, community purchasing power, reasonable margins, and facilities for supply and distribution (17). For example, they said that the Governor of the South Sulawesi Province stipulated the Highest Retail Price for LPG of 3 kg in the Province, which is within 60 km from the LPG Bulk Filling and Freight Station (SPPBE) as expensive as Rp 18,500,-. The Gowa Regent Regulation sets the Highest Retail Price of LPG Tube 3 kg that applies to sub-agents in the lowlands at Rp 16,000,- and in the highlands as expensive as Rp 18,000,-.

Aryani and Syarvina explained that each month, the agent would receive a subsidized LPG quota from SPPBE, which is then distributed to the sub-agents (25). The quota amount varies for each agent based on the number of sub-agents that are partners. The more sub-agents served, the more LPG quotas will be given to agents by Pertamina. Furthermore, the agent will deliver 3 kg tubes of LPG to sub-agents according to the quota that has been spent. The sub-agent is the last unit of the Pertamina supply chain system that distributes subsidized LPG to the community. The sub-agent understands how to distribute subsidized LPG to target communities or vice versa because of their interaction with the community.

Hamzah and friends explain that agents and sub-agents often remind all people to use non-subsidized LPG so that no scarcity will harm the poor who need it (17). Nevertheless, scarcity still occurs because people continue to buy subsidized LPG. After all, they feel reluctant to buy larger non-subsidized LPG with heavy volumes, non-subsidized LPG prices, and LPG subsidies are easily obtained retail and are practically used. Even so, the Municipal/District Trade and Industry Service often encounters rogue agents where the quota of the sub-agents is transferred to retailers and sub-agents that raise prices, not following HET. However, no matter how much the price is raised or played, the need of the poor for LPG 3 kg tubes is inevitable, so they keep buying them.

Our evaluation indicates that Pertamina and the Government have a well-planned supply and distribution of subsidized LPG. However, agents and sub-agents tend to refrain from reporting on the sales realization, and not orderly carrying out Pertamina and Government arrangements. Moreover, the target community entitled to receive subsidies is difficult to identify, so anyone can get subsidized LPG. Thus, the subsidized LPG distribution could have been right on target if there had been a database of the target community. Furthermore, the prone of illegal refilling and hoarding due to price

disparities between subsidized LPG and non-subsidized LPG happen because agents, sub-agents, or communities seek profits as much as possible.

3.3.2. Situation Analysis of the Rules' Effect on Sales and Utilization of Subsidized LPG

Hamzah and friends declare that all LPG quota subsidies provided by Pertamina through Storage Facilities to SPPBE, agents, and sub-agents were never a shortage according to the local community's needs ordered based on the city's proposal from the sub-agents (17). Instead, scarcity occurs or does not run smoothly after distribution to retailers. They submitted reports of the discovery of subsidized LPG belonging to several retailers in Bajeng District and its surroundings which still keep gas tubes during the agricultural season, where prices have increased from Rp. 16,000,- becomes Rp.25,000,- per tube.

Sentosa and Ali also inform that there are rogue sub-agent who abuses the rule of law (26). However, people do not care about the rampant practice of subsidized LPG distribution. The Police, as passive law enforcement officers, are only waiting for community reports to conduct investigations. Moreover, the lack of oversight by the Government and Pertamina for the subsidized LPG distribution caused mushrooming of retail stalls.

Our evaluation shows differences of interest between the Government, Pertamina, agents, and sub-agents. The Government and Pertamina endeavour to guarantee the supply and selling price of subsidized LPG for the target community. At the same time, agents and sub-agents ensure the quota obtained can be used up according to commitments agreed with Pertamina. For this reason, agents and sub-agents sell subsidized LPG to target and non-target communities. So, prices at the consumer level tend to be determined by retailers, so price control is difficult. This creates conflict of interest between providing benefits of subsidized LPG for the target community and ensuring subsidized LPG stocks are sold to maintain business profits. Consequently, the demand for subsidized LPG increases, so supply decreases and selling prices increase.

4. Conclusion

The challenge of implementing subsidized LPG policy in Indonesia is on aspects of governance that need to be better implemented. The indications can be seen where the rules that have been prepared at the Government level do not anticipate abuse by non-target communities and rent-seeking practices by all parties involved. Consequently,

only some rules issued at the Corporation level are fully executed due to the behaviour of the entrepreneurs and the communities. Pertamina and the Regional Government have their interpretations to adjust to the situation and conditions in reality. Furthermore, at the Operational level, only some rules issued at the Government and Corporation levels are fully applied by business entities and communities. Because of conflicts of interest between agents and sub-agents seeking profit, non-targeted communities seeking cheap and practical LPG, and the target community demanding guaranteed supply and subsidized LPG prices.

The challenges faced in the governance of subsidized LPG policies and their causes from an institutional perspective can be described as follows (Figure 4):

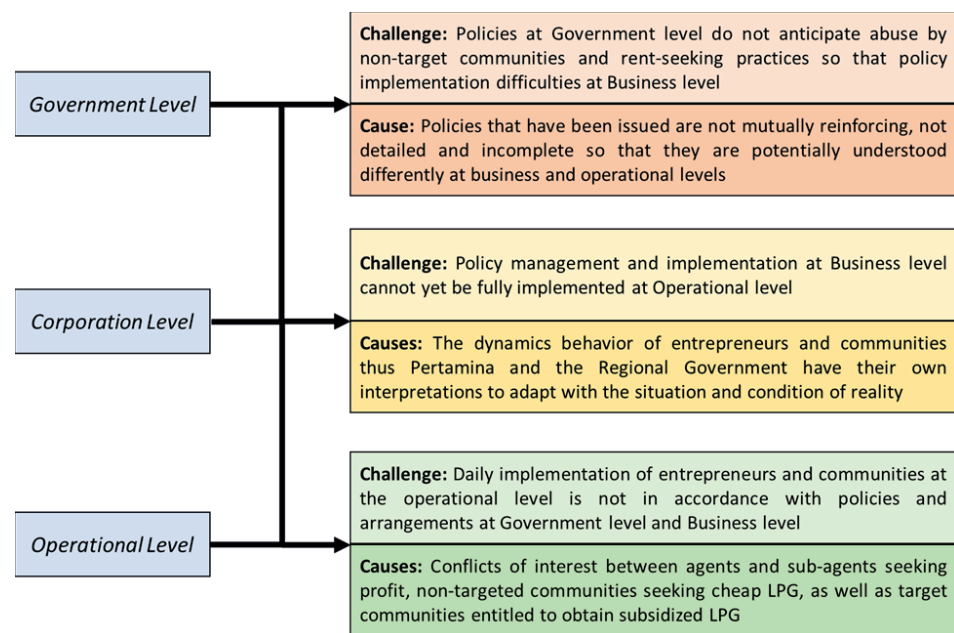


Figure 5: Challenge Diagram in Subsidized LPG Policy Governance in Indonesia.

Astuti and her friends explain that some people are trapped, because there are no other energy choices, so they use subsidized LPG (27). In addition, the main reason people turn to LPG is that subsidies make them cheaper. As a result, this condition makes the community increasingly dependent on LPG, which is non-renewable energy. Hence, efforts to implement policy reforms require substantial government support and cooperation from all parties.

Kuehl and his associates advise Indonesia to redirect LPG subsidies from the wealthy to the needy (28). To guarantee recipients have access to subsidized LPG, Indonesia must restructure LPG subsidies with a comprehensive data-gathering system. In addition, Indonesia must precede LPG subsidy changes with effective public support plans incorporating political and other prominent organizations by conveying reform aims,

benefits, and compensating mechanisms as a buffer against possible economic shocks to prevent reform rejection.

Elinor Ostrom explained that institutional regulations coordinate the series of actions of various complex policy actors involving various competing institutions (13). Policy actors intend to realize goals efficiently but must overcome imperfect information and a lack of incentives. So when changes in information structure and incentives are made to change the behaviour of policy actors in the desired direction, the change is made by changing the institutional regulations used by policy actors and institutions involved in various arenas of action and the situation.

Based on the discussion and conclusions above, all challenges and their causes should be analyzed to identify possible solutions and strategies to mitigate them by implementing policy reform. Therefore, further research is needed to analyze the impact and consequences of implementing policy reform to estimate its benefits and challenges. Finally, this further research should prescribe subsidized LPG policy reforms by improving coordination and identifying the best strategies for policy intervention.

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