Regional Cooperation in The Utilization of Trans-ASEAN Gas Pipelines: An International Law Perspective

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ABSTRACT

The Trans-ASEAN Gas Pipelines was a project of interconnected cross-border pipelines connecting ASEAN countries in a bilateral manner based on the cooperation stipulated in the Memorandum of Understanding of Trans-ASEAN Gas Pipelines. This paper would identify Trans-ASEAN Gas Pipelines with the two (two) cooperation models already practiced worldwide, namely the interconnected model and the unified project model. The method used in this article was normative juridical, including the comparative approach and statute approach, by obtaining data from secondary sources. More specifically, this article would elaborate on which cooperation model could be adopted by Trans-ASEAN Gas Pipelines that would effectively govern the project. The results showed that the cooperation of Trans-ASEAN Gas Pipelines was unlike that practiced by countries generally since the project consisted of both cross-border pipelines and regasification terminals. The decision to incorporate regasification terminals into the project was made to provide an alternative to the region’s depleting gas supply. The model was not known in the cross-border pipeline regime and therefore could not be identified with the already known two (two) models. Although Trans-ASEAN Gas Pipelines were a series of interconnected pipelines in nature, the implementation was not in accordance with the theory. A cross-border pipeline and terminal regasification should not be put together in the same energy transport project as they both have different characteristics, thus making the governance of the project complicated while a harmonized legal framework plays an important aspect in a cross-border infrastructure. Trans-ASEAN Gas Pipelines will only focus on cross-border pipelines and will follow the model of a unified project.

Keywords: Cross-Border Pipelines; International Law; Trans-ASEAN Gas Pipelines;

INTRODUCTION

According to data released by the International Energy Association, from 1990 to 2018, natural gas consumption in the world tended to increase even though it had decreased in 2009 and 2012 (IEA, 2020a). In line with this, the supply of natural gas also experienced a tendency to increase from 1990 to 2018 (IEA, 2020b). Based on data recorded in the World Energy Outlook
2019 from the International Energy Association, natural gas consumption is predicted to continue to increase until 2040 if viewed from the Stated Policies Scenario and will reach its highest peak in the 2020s period if viewed from the Sustainable Development Scenario (IEA, 2019). That, along with the increasing consumption of natural gas from year to year, means the demand for natural gas needs will tend to increase in the future. For example, until 2040, ASEAN countries are predicted to still depend on natural gas, and it will become an energy source whose growth tends to be faster than other fuels (ASEAN Centre for Energy, 2020). In addition, the need for natural gas can be seen from the Indonesian side, namely this country’s policy that targets the Renewable Energy Target for 2025 and 2050 as described below:

![Image](https://www.wowshack.com/6-reasons-why-indonesia-is-ideal-for-renewable-energy/ accessed on 19 June 2022 at 17:51 WIB)

The data shows that although Indonesia targets using renewable energy in the future, there is still a dependence on natural gas as its energy source. The result of this phenomenon is that there will still be many countries involved in the sale and purchase of natural gas to meet their domestic supply. In practice, natural gas trading activities are carried out either through pipelines or in the form of liquefied natural gas (LNG). Distribution of natural gas through pipelines involves the transportation of natural gas in large quantities through pipelines between countries that are close to each other, while LNG is transported by ship from one port to another (Peng et al., 2021). Natural gas trade from one country to another involves importing and exporting natural gas, which is channeled through pipelines that extend beyond one country’s territory. So far, many countries have succeeded in implementing cross-border pipeline projects to accommodate natural gas import and export activities, including the Trans-med Pipeline between Algeria, Italy, and Tunisia, which supplies gas to Italy and Tunisia, and the Central Asia – China Gas Pipelines between Kazakhstan, Uzbekistan, Turkmenistan, Tajikistan, and China (Wang, 2016).

The cross-border pipeline utility project involves more than one country because the purpose of the project is to transport natural gas from the selling country to the buying country. Then, in order to create order and certainty, it is necessary to have a set of laws that will regulate the
operation of projects involving more than one country. In international law, the legal framework can be in the form of an agreement made between countries involved in cooperation, for example, in this case, the cooperation of cross-border pipelines. Aspects of international law related to the discussion in this paper are related to international agreements, which are one of the sources of international law as regulated in Article 38 paragraph (1) of the Statute of the International Court of Justice. Meanwhile, until now, there has been no unified set of international law that can be used as a source of law for cross-border pipeline cooperation for all countries in the world. However, some aspects of cross-border pipelines can be found in several international agreements, such as the United Nations Convention on the Law of the Sea (UNCLOS), the Energy Charter Treaty (ECT), and the Convention on Transit Trade of Land-Locked States (Transit Convention) (Vinogradov & Mete, 2013).

At the regional level in Southeast Asia, there is a cross-border gas pipeline project known as the Trans-ASEAN Gas Pipelines (TAGP), which was agreed on July 5, 2002, based on a Memorandum of Understanding (MoU) which entered into force in July 2004 (ASEAN, 2012). Then, the MoU was extended so that it is valid until May 20, 2024. TAGP is focused on the long-term security of energy supply in the ASEAN region, which is obtained through the interconnection of gas pipeline infrastructure between ASEAN member countries and regasification terminals so that gas supplies can be transported to ASEAN countries. TAGP connects a total of 13 (thirteen) pipelines with a length of 3,631 km and 9 (nine) regasification terminals (ASEAN Center for Energy, 2020). TAGP project cooperation is based on an MoU that binds ASEAN member countries. The MoU encourages ASEAN member countries to work together to realize the TAGP project. This is reflected in Article II of the MoU, which states as follows: "Member Countries shall: establish cooperation in the various aspects of the realization of the TAGP Project;".

This provision provides an impetus for ASEAN countries to cooperate in the implementation of the TAGP project. The cooperation of each pipeline is bilateral because it only connects two countries. In practice, the implementation of the sale and purchase of gas between the two countries in the TAGP project involves the private sector, which will act as the seller and operator of the operation and maintenance of the pipeline. Thus, the contract that binds the private sector is also divided into two (2), namely the gas sale and purchase agreement and the gas transportation agreement. For example, the gas sale and purchase contract from Grissik to Singapore involves ConocoPhillips Grissik Ltd and Petrochina as sellers and Gas Supply Pte Ltd (a gas company in Singapore) as buyers (Asmarini, 2020). Then, for the operation of the gas pipeline connecting Grissik (South Sumatra) and Singapore, PT. Transportation Gas Indonesia (Transgasindo) was appointed as the operator (Transgasindo, 2020).

ASEAN is a region consisting of the majority of developing countries, so it can be understood that the law cannot be said to be as advanced as developed countries. This can be exemplified by how a large energy infrastructure project, namely TAGP, is only based on an MoU and bilateral
relations between the countries involved (Das, 2012) (Sovacool, 2010). This means that the legal framework that regulates projects with large investments, such as TAGP, has not been said to be comprehensive or perfect to regulate all aspects required in the project. When compared to developed countries, such as those in the European region that adopted the norms in the ECT and Model Agreements, it can be said that there is a considerable difference with what is occurring in the ASEAN region.

The TAGP project is basically intended to connect gas pipelines from gas sources in the Gulf of Thailand, Myanmar, and Indonesia (Sovacool, 2010). One of the objectives of implementing the TAGP project is to maintain the long-term security of energy supply in the ASEAN region (ASEAN, 2012). However, it turns out that this project is still considered ineffective in achieving this goal. This is because the prospect of TAGP is very dependent on the fundamentals of supply and demand for natural gas in the Southeast Asia region, which has now undergone significant changes (Das, 2012). In fact, changes in supply and demand for natural gas in Southeast Asia are predicted to occur in the range of 2015 to 2040 (Shi et al., 2019). In addition, according to the TAGP Master Plan, the project actually depends on the East Natuna block, which is considered to have large natural gas reserves (Ramli & Abdullah, 2009). However, in reality, until now, the Indonesian government has not been able to produce in the East Natuna block due to various problems found in the field. These things are actually fundamental problems that have hampered the TAGP project, which was originally planned to be completed in 2020 but was extended until 2024 (Ramli & Abdullah, 2009). In addition, to save the TAGP project, the scope of the cooperation was expanded to include buying and selling LNG by connecting the existing regasification terminals in the ASEAN region. Thus, TAGP does not only focus on natural gas distribution through cross-border pipelines but also LNG.

This article will analyze how the TAGP project compares to existing agreements and practices related to cross-border pipeline cooperation, especially in areas that are guided by the ECT and Model Agreements, and how the problems that hinder the development of the TAGP project affect cooperation between ASEAN countries involved in the project.

**METHOD**

The approach method that the author used was normative juridical research, namely the study of legal norms, from which data was obtained from secondary data. The research was conducted based on the facts found in various secondary data. The form of the research was prescriptive. The data collection method carried out in this research was the study of library materials or document studies. This research was based on the analysis of legal norms. The author would use the legal norms contained in international law such as UNCLOS, the Transit Convention, and ECT. The data processing and analysis method used in this study was a qualitative method, meaning research procedures that produce analytical descriptive data,
namely what was stated by the research target concerned in writing or orally, and real behavior (Soekanto & Mamudji, 2015). This research would identify the legal basis of the cooperation model of TAGP. In addition, this research would involve a comparative approach by comparing the legal systems prevailing in certain societies and a statutory approach by researching certain legal norms. Specifically, this research would analyze what kind of legal framework could be applied as a basis for cooperation on TAGP between ASEAN countries in the future. In addition, an analysis would be given regarding the impact of the reduced supply of natural gas in the ASEAN region on the cooperation of Trans-ASEAN Gas Pipelines.

ANALYSIS AND DISCUSSION

A. Cross-Border Pipelines in International Law

International law is the law that regulates all aspects of crossing national borders. In this discussion, the international law in question is in the public domain. Public international law is defined by Mochtar Kusumaatmadja and Etty R. Agoes as "the total rules and legal principles governing relations or issues that cross national borders (international relations) that are not civil in nature" (Kusumaatmadja & Agoes, 2019). As for more concrete international law, it can be formulated as follows:

"International law is the whole set of rules and principles governing relations or issues that cross national borders between (Kusumaatmadja & Agoes, 2019):

1. country by country;
2. countries with other legal subjects that are not countries or legal subjects that are not each other's country."

So, in conclusion, international law is the norms governing legal relations involving more than one country. One source of international law is international conventions, or more commonly known as international agreements, as regulated in Article 38 paragraph (1) of the Statute of the International Court of Justice. An international agreement is an agreement entered into between subjects of international law who are members of the international community that aims to result in certain legal consequences (Kusumaatmadja & Agoes, 2019). International conventions or international agreements are agreements between countries that are binding on contracting countries and regulate various areas, including trade, science, crime, disarmament, transportation, and human rights (United Nations, 2020). According to the provisions in Article 1 paragraph (1) of Law Number 24 of 2000 concerning International Agreements (UU 24/2000), the definition of an international agreement is an agreement, in a certain form and name, which is regulated in international law, is made in writing and gives rise to rights and obligations in the field of public law. International agreements have the following roles (Suryokusumo, 2008):

"In the historical development of international relations, agreements made between countries have a very basic role, especially since the agreement itself is a source of international law
and at the same time as a way for all countries to develop peaceful cooperation regardless of the different social systems and constitutions."

Based on the things that have been explained above, it can be understood that, in conclusion, international cooperation, namely cooperation that crosses national borders, is based on consent between countries. The consent can be contained in an international agreement. An international agreement is basically an agreement between the parties regarding various international issues in the fields of politics, economy, trade, society, culture, and various issues of science and technology (Suryokusumo, 2008) (Mulyana, 2016). The definition and form of the agreement according to the International Law Commission is as follows:

"Every international agreement in written form, whether compiled in an instrument or two or more related instruments and whatever their form (agreement, convention, protocol, convention, charter, statute, deed, declaration, concordat, exchange of notes, agreed minute, memorandum of agreement, modus vivendi or something else) made between two or more countries or other subjects of international law regulated by international law."

The forms and terms of the agreement consist of the following: (i) an agreement, which is a legally binding international instrument that reflects a contractual nature between states or between states and international organizations and creates legal rights and obligations between the parties entering into such an agreement on the subjects covered by such agreement; (ii) Accords, a less formal instrument than an agreement or convention, are used for agreements with a more limited scope and fewer parties than ordinary conventions and are used for agreements concerning technical and administrative matters. (iii) Protocols can include amending or supplementing instruments to previous international agreements, extending the validity period of a nearly expired treaty or convention, or providing a summary of the official meeting report. (iv) A declaration is an instrument that is mutually agreed upon for a purpose and objective but is not necessarily binding and obligatory on the parties (Suryokusumo, 2008). International agreements can be divided into two (two) groups if viewed in terms of the parties involved and their nature. In terms of the parties involved in the agreement, there are two (2) types of agreements, namely bilateral and multilateral agreements. A bilateral agreement means an agreement between two parties, while a multilateral agreement means an agreement between many parties (Kusumaatmadja & Agoes, 2019). Then, the groups based on their nature consist of treaty contracts and law-making treaties. A treaty contract is a contract or agreement in civil law that only results in rights and obligations between the parties who enter into the agreement, while a law-making treaty is an agreement that lays down legal provisions or rules for the international community as a whole (Kusumaatmadja & Agoes, 2019).

Whereas there has previously been no uniformity in international law that exclusively regulates cross-border transportation, transit, and energy infrastructure (Vinogradov, 1999). However, there are several international agreements of general application that support the legal framework to support pipeline projects (Dulaney & Merrick, 2015). For example, there have been
multilateral agreements which regulate various aspects related to cross-border pipelines, such as aspects related to the legal regime of submarine pipelines and provisions for transit in land-locked states as regulated in the UNCLOS and cooperation related to the transit of energy materials and products as stipulated in the ECT (Vinogradov, 1999).

1. UNCLOS

Aspects of cross-border pipelines regulated in UNCLOS are related to the pipeline regime in several maritime zones, namely the EEZ, continental shelf, and high seas, which are respectively regulated in Article 58, Article 79, Article 87, and Article 112. UNCLOS lays down rights and certain obligations for countries depending on the maritime zone in which the pipeline is located. In conclusion, UNCLOS provides freedom for countries to lay submarine pipelines where coastal states exercise their sovereign rights: those in the EEZ and continental shelf and in maritime zones that are free from the jurisdiction of any country, that is on the high seas. However, such freedom is also limited by several things, such as the rights and obligations of the coastal state in the EEZ and the continental shelf, as well as the obligation of other countries to comply with the laws and regulations adopted by the coastal state related to the exploration and exploitation of natural resources (Subadi, 2021). On the other hand, the coastal state must not prevent other countries from laying or maintaining pipelines in the EEZ and its continental shelf (Vinogradov, 1999). Countries are also free to lay pipelines on the high seas as a form of "freedom of the high seas" and on the seabed under the high seas, which is not part of the continental shelf of the coastal state.

Based on the description above, it can be understood that the arrangement of pipelines in UNCLOS is only limited to the rights and obligations of coastal states and third countries regarding the laying of pipelines in the EEZ, continental shelf, and high seas (Rumesten et al., 2019). This convention does not specifically regulate the cooperation of countries in the utilization of cross-border pipelines.

2. Transit Convention

The Transit Convention is a convention created by the United Nations that aims to give landlocked countries the right to trade by sea. This is possible if a country is between the sea and a country that does not have access to the sea so that the former country functions as a transit country. Based on the provisions of the Transit Convention, landlocked countries have the right to bring goods across the transit country to then be traded by sea. Then, specifically for pipelines, Article (d) of the Transit Convention stipulates that pipelines are one type of "means of transport". This means that the implementation that can occur from the provisions in the Transit Convention is that the state has the right to distribute goods that can be channeled through cross-border
pipelines (such as natural gas), considering that the flow of transportation involves the borders of more than two countries.

Based on the description above, it can be understood that the regulation of cross-border pipelines is not the main focus of the Transit Convention. This is because, related to pipelines, the convention only stipulates those pipelines are one type of "means of transport".

3. Energy Charter Treaty (ECT)

ECT can be considered an international agreement that is slightly more comprehensive in regulating cross-border pipelines. Article 7 ECT specifically regulates the transit of energy materials and products involving 2 (two) or more countries where the transit activity may involve energy transport facilities, one of which, based on Article 7 (10) (b) ECT, is a high-pressure transmission pipeline. In conclusion, the provisions for the transit of these materials and products are regulated in Article 7 of the ECT, which specifically regulates the rights and obligations of producing, consuming, and transit countries. Therefore, the norms contained in Article 7 of this ECT can be applied to the distribution of energy materials using cross-border pipelines.

In Article 7 of ECT, the contracting countries agree to regulate the obligations of the contracting countries so that there are no obstacles in terms of transit activities of energy materials and products in order to create a continuous energy supply (Piri Damagh, 2015). Aspects that are regulated are the obligation of contracting countries to apply the principle of freedom of transit and non-discrimination as well as exemption from costs in energy transit activities, then to carry out facility development, to mitigate if disturbances are found, and to facilitate interconnection of energy transportation facilities; and the prohibition of the state to provide barriers for increasing energy transport capacity. In addition to these obligations, ECT countries have the right to refuse to grant permission for the construction or modification of new or additional energy transportation facilities or transit activities if this endangers the energy system and also the security of the country's energy supply. Lastly, the state is prohibited from stopping the flow of energy in transit in the event of a dispute before the completion of the dispute resolution procedure unless stated otherwise in the agreement.

The Secretariat of the Energy Charter Conference has provided two model agreements that facilitate cross-border projects, be it for oil or gas (Piri Damagh, 2015). The two agreement models consist of the Intergovernmental Agreement (IGA) and the Host Government Agreement (HGA). There are two things that are important to know regarding the IGA and HGA agreement models, namely that the two agreement models depend on each other and are designed to be represented as one ‘package’ (Energy Charter Secretariat, 2008).
1. Intergovernmental Agreement (IGA)

IGAs are agreements made between countries traversed by the route of a pipeline and are usually reserved for specific pipeline projects (Dulaney & Merrick, 2015). In other words, this agreement is intended for countries whose areas will be built and operated by pipelines. Therefore, IGA basically consists of a legal framework related to the construction and operation of pipelines. The nature of the IGA is as a principal agreement which will later be linked to other commercial contracts, one of which is the Host Government Agreement (Piri Damagh, 2015). The creation of an IGA led to the creation of a harmonious legal framework for the entire pipeline network area (Energy Charter Secretariat, 2015) (Bhattacharyya, 2019). Because the parties to the IGA are states, this agreement is subject to public international law. The matters regulated in the IGA are horizontal in nature regarding the overall pipeline infrastructure, such as cooperation, land rights, taxation, and other issues relevant to the implementation of pipeline projects (Energy Charter Secretariat, 2008).

2. Host Government Agreement (HGA)

The HGA is an agreement between the investor or the owner of the pipeline network and the host country, namely the country whose territory the pipeline project will be realized (Dulaney & Merrick, 2015). Basically, this agreement is an investment treaty, so it is not subject to public international law. Each country party to an IGA agreement signs HGAs with project investors separately (Piri Damagh, 2015). HGA regulates matters regarding vertical issues of project activities within the territory of each country and develops issues that have been regulated in the IGA, such as government’s obligations, investor’s obligations, environmental standards, responsibilities, terminations and so on (Energy Charter Secretariat, 2008).

B. Trans-ASEAN Gas Pipelines Model Framework

Damagh gives a simple characteristic of cross-border pipelines as “pipelines that cover international territory or territory belonging to other countries” (Piri Damagh, 2015). On the other hand, comprehensively, provide a definition of a cross-border pipeline as follows: (Dulaney & Merrick, 2015)

“A cross-border pipeline is a pipeline that has its origin (at either wellhead or the interconnect to another pipeline system) in one nation and that traverses one or more other nations along its route. Structurally, the cross-border pipeline may adopt either of two models:”

1) a series of connected domestic pipelines, which are each treated as separate and distinct assets. Each domestic pipeline will be governed by the law of the jurisdiction in which it is located, will commonly be owned and operated by different parties and the terms and conditions of using each pipeline may be different thereby requiring users to enter into separate transport agreements for each sector of transit; or
2) a single, unified asset with common owners and transport terms, which is regulated by a combination of domestic law, international law and contract.”
The first model is a country’s domestic pipeline that is connected to another country’s domestic pipeline, or commonly referred to as the interconnector model. The two pipelines are connected simultaneously at the boundary between the two countries concerned (Freehills, 2012). In this case, the ownership of both the pipeline and the substances (gas or oil) is transferred to another state at the border (Mehdi & Faure, 2014). The laws of each country concerned are those that apply to pipelines located on the territory of the related country (Freehills, 2012). Even though national law applies, an agreement between countries regarding the location of state borders in this model is needed to avoid disputes regarding territorial claims between the countries concerned (Freehills, 2012). Thus, in the interconnector framework of this model, there is still a chance that an international agreement is needed, especially regarding regional borders.

The second model is a cross-border pipeline, which is treated as a separate asset and a unit, or commonly called the unified project model. This pipeline is considered a single asset that crosses more than one country’s boundary. The law that applies to this pipeline model is an agreement made between countries involved in a cross-border pipeline project in the form of an IGA (Freehills, 2012). In this model, an agreement is drawn up to regulate certain pipeline projects. That is in the form of an IGA and then complemented by an HGA, which is an agreement between the state and the private sector. This is because, in this model, cooperation between countries is not enough to regulate the pipeline project, but it is also necessary to regulate the construction and operation of the project, which is usually carried out by a company or a consortium (Freehills, 2012).

Examples of IGAs include the Agreement among the Azerbaijan Republic, Georgia and the Republic of Turkey Relating to the Transportation of Petroleum via the Territories of the Azerbaijan Republic, Georgia and the Republic of Turkey. Through the Baku-Tsibilisi-Ceyhan Main Export Pipeline in 1999, The Baku-Tsibilisi-Ceyhan project, the agreement made between the Chinese government and the respective governments of Kazakhstan, Uzbekistan, Turkmenistan, and Tajikistan for the Central Asia – China Gas Pipeline project, and The Shareholder's Restructuring Agreement of 1996, which governs the cross-border pipeline project for transportation of oil, namely the Caspian Pipeline Consortium.

TAGP is one of the seven programs of the ASEAN Plan of Action for Energy Cooperation (APAEC), which has a key strategy of pursuing the development of a “common gas market” for ASEAN by increasing connectivity and accessibility of gas and LNG. This infrastructure project is also expected to increase energy security among ASEAN countries. The idea of developing energy security was emphasized in the Bangkok Summit Declaration on December 15, 1995, which stated that “ASEAN shall ensure greater security and sustainability of energy supply through diversification, development and conservation of resources, the efficient use of energy, and the wider application of energy-efficient and environmentally sound technologies.” Then, the
TAGP project was explicitly mentioned in the ASEAN Vision 2020, which was the result of the ASEAN Second Informal Summit on December 15, 1997, with the following statement:

“Establish interconnecting arrangements in the field of energy and utilities for electricity, natural gas and water within ASEAN through the ASEAN Power Grid and a Trans-ASEAN Gas Pipeline and Water Pipeline, and promote cooperation in energy efficiency and conservation, as well as the development of new and renewable energy resources.”

In the end, the Hanoi Plan of Action adopted in 1998 pushed for the realization of the TAGP project with a direction to institutionalize the policy framework and project implementation modalities in 2004. In July 2002, a Memorandum of Understanding on Trans-ASEAN Gas Pipelines (MoU TAGP) was signed by the ASEAN Energy Ministers, which serves as a framework for cooperation for public-private partnership and collaboration in the implementation of TAGP (APAEC Drafting Committee, 2003).

In 2008, the Masterplan on Trans-ASEAN Gas Pipelines was renewed and planned to construct a gas pipeline of 4,500 kilometers with a value of USD 7 billion, connecting as many as 13 (thirteen) gas pipelines (APAEC Drafting Committee, 2010). In 2012, ASEAN countries expanded the focus of TAGP implementation, which was initially limited to connections through physical gas pipelines, to include connections through regasification terminals, which became virtual pipelines. The expansion of this activity is due to the challenges of global gas development, including the lack of production in the East Natuna block, causing LNG to become an option for gas supply sources in the ASEAN region (Widarsono, 2007). Then, in order to maintain a framework for cooperation, the TAGP MoU was extended until 2024 with an instrument signed by ASEAN countries in 2013.

Currently, TAGP has connected 6 (six) ASEAN countries through a pipeline with a total length of 3,361 km and 9 (nine) regasification terminals with a total capacity of 38.75 MPA (ASEAN Centre for Energy, 2020). The development of this project seems to be more inclined towards securing LNG supply, marked by the creation of a Model LNG Sales and Purchase Agreement (SPA) and Master LNG SPA as a reference to guide long-term LNG contracts. In addition, ASCOPE (ASEAN Council on Petroleum) has also completed 2 (two) studies related to small-scale LNG (ssLNG) and LNG bunkering, which aim to encourage and facilitate collaboration between ASEAN countries for the development of ssLNG and LNG bunkering.

ASCOPE is an organization consisting of heads of national oil and gas companies or national entities responsible for oil and gas in each ASEAN member country (ASEAN Centre for Energy, 2020). The main objective of ASCOPE is to support ASEAN member countries to improve their capabilities through mutual assistance or assistance in all aspects and stages of the oil industry. The APAEC report for 1999–2004 indicates that ASCOPE is the organization that would be responsible for the implementation of the TAGP project. ASCOPE is tasked with preparing work programs, funding sources, budgets, and implementation arrangements based on an action plan
approved by the ASEAN Senior Officials Meeting on Energy (SOME) and the ASEAN Minister's of Energy Meeting (AMEM).

The purpose of TAGP is to create resilience and sustainability in energy supply, in this case, natural gas in the ASEAN region. The implementation of the TAGP project, as described in the 2004–2009 APAEC report, has the objective of ensuring greater economic value and security of gas supply. According to the APAEC report for 2010–2015, the aim of TAGP is to establish a regional gas network by 2020 by connecting existing and planned gas pipelines between ASEAN member countries. Furthermore, in the APAEC report for 2016–2025 phase I, it is stated that the TAGP aims to connect the existing and planned gas pipeline infrastructure within ASEAN to transport natural gas across borders in order to ensure the security of a larger gas supply. The APAEC report for 2016–2025 phase II states that the goal of TAGP is to create an interconnection project to ensure greater security and sustainability of gas supply by connecting existing and planned pipelines and regasification terminals while minimizing environmental impacts. TAGP is a form of cooperation on a multilateral basis between ten ASEAN countries, but in practice, there are only six (six) countries involved in gas buying and selling activities and the distribution is still done bilaterally. However, TAGP is planned to be able to connect the bilateral network to become multilateral in the future. Therefore, it can be understood that the nature of the pipeline contained in the TAGP project is that it is a cross-border pipeline that crosses the boundary between two (two) countries. In this case, it is necessary to review how the pipeline is treated as the definition of a cross-border pipeline defined by Merrick and Dulaney is whether it is a domestic pipeline that is connected to each other (interconnector model) or a unified project model.

When viewed from a legal perspective, the initial implementation of the TAGP cooperation has not been contained in a concrete legal framework but has only been specifically stated in several documents resulting from meetings of ASEAN countries, such as ASEAN Vision 2020 and the Hanoi Plan of Action 1998. The legal framework achieved by ASEAN to implement the TAGP project cooperation is in the form of a TAGP MoU signed by ASEAN countries in 2002 and effective in 2004. The purpose of the TAGP MoU is stated in Article I. objective, which reads as follows:

“The objective of this Memorandum of Understanding is to provide a broad of framework for ASEAN Member Countries to cooperate towards the realization of the TAGP Project to help ensure greater regional energy security.”

Thus, in conclusion, the intent of the TAGP MoU is to serve as a framework for the co-realization of the TAGP Project, which helps to ensure greater regional energy security. Unlike the previous section, the new TAGP cooperation is between two ASEAN countries, such as Indonesia and Malaysia; Indonesia and Singapore; Singapore and Malaysia; Myanmar and Thailand; and so on. One form of the implementation of the MoU TAGP carried out by ASEAN countries is to cooperate in the sale and purchase of gas and also in gas transportation. The
construction of the TAGP interconnection pipeline is fully commercialized by ASCOPE members (Ramli & Abdullah, 2009). ASCOPE, which consists of national oil companies from each ASEAN member, is the organization that realizes the TAGP project. The investment in TAGP is the result of negotiations conducted between sovereign owners of natural gas resources in the region and major international oil and gas companies, which provide the equity investments and commercial debt instruments as well as the technology and expertise (Doshi, 2020). This means that bilateral relations are carried out based on the agreement of each oil and gas company in the country involved in a cross-border pipeline project. The bilateral relationship between Singapore and Indonesia related to gas export activities from the West Natuna block to Singapore is a gas sale and purchase agreement between Pertamina and SembCorp Gas Pte Ltd for a period of 20 (twenty) years (Day, 2005). In addition to importing gas from the West Natuna block, Singapore also obtains gas from Grissik, South Sumatra based on a gas sale and purchase contract between ConocoPhillips and Petrochina with Gas Supply Pte Ltd. As for the sale and purchase of gas between Indonesia and Malaysia, it is based on a gas sale and purchase agreement that lasts for 20 (twenty) years between Petronas and Pertamina, a coordination agreement for pipeline construction and provisions related to multi-user pipelines (Day, 2005).

The basis for TAGP cooperation is an MoU, which, according to the International Law Commission, is a form of international agreement (Suryokusumo, 2008). The MoU in the public international law regime is defined by the UN Treaty Handbook as follows:

“The term memorandum of understanding (M.O.U.) is often used to denote a less formal international instrument than a typical treaty or international agreement. It often sets out operational arrangements under a framework international agreement. It is also used for the regulation of technical or detailed matters. An M.O.U. typically consists of a single instrument and is entered into among States and/or international organizations.”

Specifically, for this TAGP project, cooperation at the country level is contained in an MoU in which the implementation of the provisions in the MoU is the responsibility of ASCOPE. At the ASCOPE level, the relationship between parties representing the state takes place on a commercial basis, meaning that the gas sale and purchase agreement and gas transportation agreement are directly carried out by companies involved in gas buying and selling activities. Thus, it is understood that each cross-border pipeline of TAGP is subject to the MoU and commercial contracts between these companies.

In regard to the cooperation model, TAGP consists of interconnecting cross-border pipelines or adheres to the interconnector model. Therefore, based on the existing theory, cross-border pipelines should be subject to the laws of each country where the pipeline segment is located. However, in its development, the project now not only consists of cross-border pipelines but also the connection of LNG regasification terminals treated as "virtual pipelines", which mainly focus on small-scale production and consumption (Doshi, 2020). TAGP is expanded to the LNG market by connecting the existing regasification terminals in the region. Therefore, based on this
condition, the TAGP model does not conform to the principles of the interconnector model nor the unified project model.

In addition, TAGP cannot be concluded in the category of unified model because there is no such thing as an agreement, like IGA, between respective states. For example, the agreement between the government of Indonesia and the government of Singapore and the agreement between the government of Indonesia and the government of Malaysia related to the pipelines in the TAGP project cannot be found. The most relevant agreement is between Indonesia and Malaysia stipulated in the MoU on Energy Cooperation dated July 10, 1997, which one of the scopes of cooperation includes electricity and gas transmission. Furthermore, the TAGP actually has a different model than the two types of cross-border pipelines because, in reality, the TAGP does not only cover gas pipeline activities but also regasification terminals. In practice, cross-border pipeline projects only focus on pipeline infrastructure, such as the Baku-Tsibilisi-Ceyhan, Central Asia-China and Caspian Pipelines Consortium projects. Therefore, it can be concluded that TAGP has its own cooperation model in this TAGP project, so it cannot be categorized into two (two) cross-border pipeline models adopted by countries in the world generally.

So far, the cross-border pipeline cooperation model implemented by TAGP does not have an impact that hinders the development of the project. This is evidenced by the ongoing progress of this project since it was first initiated more than twenty years ago. However, on the other hand, it turns out that this project has not achieved its main goal of maintaining gas supply in the ASEAN region by connecting pipelines multilaterally in the region. Therefore, TAGP is considered not yet optimal in providing benefits to meet gas needs in the ASEAN region, so expanding this project into LNG distribution through a regasification terminal is a solution to this problem. As a result, in its latest development, TAGP consists of a cross-border pipeline infrastructure and a regasification terminal.

Including the regasification terminal into the TAGP project is not a wise step because it will make the TAGP cooperation model complex. Pipeline gas distribution and LNG are basically two different activities where piped gas is channeled through a transmission pipeline and LNG is channeled through tankers from one regasification terminal to another. In the ASEAN region, cross-border pipelines are intended for gas export and import activities between ASEAN countries, while LNG exports and imports still involve countries from other regions. Singapore imports LNG from Australia, the United States, Qatar, Angola, and Indonesia, which it exports to Japan, Taiwan, South Korea, and China (EIA, 2019b) (EIA, 2019a) (Kim et al., 2020). Thus, these two (two) activities should be separated into 2 (two) different forms of cooperation.

When it comes to cross-border pipelines in TAGP, the cooperation model that should be applied is a unified project, which is an integrated pipeline managed by IGA and HGA. Formal agreements such as IGAs that bind countries through which cross-border pipeline infrastructure is traversed are important to provide legal certainty. whereas, as previously explained, TAGP is
a project that involves energy sources whose management must be ensured as much as possible for the welfare of the people. Therefore, it is the state's responsibility to ensure that the TAGP project will not only benefit a few parties but also the greatest prosperity of the people, especially in the case of Indonesia. Legal certainty is an important element in this regard because the IGA serves to harmonize the legal framework that applies to all segments of the cross-border pipeline. Consequently, a series of uniform regulations are implemented over the cross-border pipeline, be it by excluding the enforcement of local and national regulations or giving priority to the enforcement of national regulations (Piri Damagh, 2015). This uniformity is a sort of consistency required to avoid unwarranted disruptions from operating the pipeline, and besides that, an IGA can serve as a foundation for the commercial agreements between concerned stakeholders (Siddiky, 2014). Thus, for example, an IGA can be arranged between Indonesia and Singapore for gas export and import activities from West Natuna–Singapore and Sumatra–Singapore.

As for the level of cooperation with private parties who will produce gas, purchase gas, and carry out gas transportation (or project investors), it will be based on the HGA framework. The function of the HGA is to complement the IGA previously signed by the state. In this agreement, each country will enter into an agreement with the relevant private entity for the cross-border pipeline project to be developed. For example, the Indonesian government signs an HGA with a company that would sell gas from a field located in Indonesia and build, operate, and maintain a pipeline located in Indonesia. On the other hand, the Singapore government will conduct HGAs with companies that will buy gas and companies that build, operate, and maintain pipelines located in Singapore. Therefore, another benefit of implementing a unified project is that the IGA and HGA will function as the stability needed by lenders and sponsors as these agreements give assurance regarding the effective grant of all necessary rights; commit the governments to support and help implement the project; set out clearly the tax bases and assumptions; provide fair adjustments for changes in law; and provide an effective mechanism for resolving disputes (Stein, 2015).

In addition, the argument for why the unified project model is more appropriate than the interconnector model for TAGP is that the interconnector model is not preferred at the location of disputed areas. As mentioned above, national laws of the countries traversed by the pipeline will apply to the section of pipeline located in each of their territories. Therefore, there has to be clarity on the borders of such territories by an agreement of respected countries to avoid disputes on applicable laws when certain conditions arise (for example, when a leakage occurs causing environmental damage which will require indemnification). However, in TAGP, the locations of planned cross-border pipelines, namely East Natuna to Sabah in Malaysia and Palawan-Luzon in the Philippines and East Natuna to Erawan in Thailand, are located in one of the disputed areas in the South China Sea, specifically in Sparty Island (A. Setiawan et al., 2016). Although these
pipelines have not yet been built, the respective stakeholders will take this condition into account when the pipelines are built and commissioned in the future.

Thus, the ideal model that can be adopted by TAGP is to remain focused on cross-border pipeline cooperation by separating it from LNG regasification activities. Then, for the construction, operation, and maintenance of the cross-border pipeline, the relevant state and private parties can work together using the unified project model. Under this unified project model, a legal framework based on the IGA and HGA as described above will be created to regulate the overall cross-border pipeline. This model has become a common form of cooperation carried out by countries in the implementation of cross-border pipeline projects such as the BTC Pipeline, Central Asia-China Gas Pipelines, and Caspian Pipelines Consortium projects.

C. The Impact of Natural Gas Supply on the Cooperation of Trans-ASEAN Gas Pipelines

Gas production in ASEAN has a downward trend from 2019 to 2020, accompanied by a decline in gas reserves of 35.1% in 2020 compared to 2010 levels (Suwanto & Suryadi, 2021). The factors that lead to a decrease in natural gas reserves are the discovery of small gas fields; low gas prices; lack of infrastructure that causes investment in upstream activities to be hampered; and increased operating costs in dealing with gas fields that are high in carbon dioxide content (Suwanto & Suryadi, 2021). The two main factors causing the decline in gas supply in ASEAN are the non-commercial nature of the East Natuna block and Indonesia’s plan, as one of the largest exporters in ASEAN, to stop gas supply to Singapore.

At this time, the reality is that the East Natuna block cannot be commercialized because there are still many challenges in carrying out the production. The high carbon dioxide content in the East Natuna block is the biggest challenge to developing the block apart from its remote location (Huzaini, 2021). In 1980, ExxonMobil was appointed as the manager of the East Natuna block together with Pertamina, which was then followed by PTT Exploration and Production (PTT E & P) (V. N. Setiawan, 2020). Finally, in 2017, both ExxonMobil and PTT E & P decided to leave the East Natuna block collaboration, leaving only Pertamina (Amelia, 2017) (Sirait, 2017). So far, Indonesia’s role in the TAGP project is to export gas to Singapore and Malaysia from South Sumatra and West Natuna. Indonesia is involved in three gas pipelines, namely South Sumatra–Singapore, West Natuna–Singapore, and West Natuna–Malaysia. The distribution of natural gas from Sumatra to Singapore is carried out through the 470 km long South Sumatra–Singapore pipeline that connects Grissik, Batam, and Singapore and is part of TAGP (Hayes, 2003). The pipeline from South Sumatra to Singapore involves two gas contracts originating from the Corridor block managed by ConocoPhillips and the Jabung block managed by Petrochina (Widyastuti & Nugroho, 2020). In 2023, the Conocophillips gas sale and purchase contract from the Corridor block will expire, and the Indonesian government plans not to extend the contract. The main reason the Indonesian government plans to stop gas exports to Singapore is to meet domestic
gas needs first. Natural gas, which is originally supplied to Singapore, will be diverted to the Duri-Dumai pipeline throughout Sumatra to eventually be integrated into Java Island through a number of pipelines in the west, north, and east. As a result of this phenomenon, Singapore has begun to develop a regasification terminal and hopes to become an LNG hub in the Asian region.

The main purpose of the establishment of the TAGP project is to ensure security and sustainable gas supply in the ASEAN region. However, due to major challenges, such as the two factors mentioned above, namely the non-commercialization of the East Natuna block and Indonesia’s plan to stop gas exports to Singapore, it has hampered the TAGP project from achieving its objectives. With the East Natuna block not yet commercialized, it means that the planned 3 (three) interconnection pipelines connecting East Natuna with Brunei Darussalam, Malaysia, Singapore, and the Philippines cannot be realized in the near future. At the very least, the block is expected to be capable of producing by 2030 (Huzaini, 2021). In addition, Indonesia also experienced a decrease in gas reserves because the reserves in East Natuna are no longer included in the calculation. Therefore, it is important for the Indonesian government to fulfill domestic supply first to maintain the resilience of gas supply and decide to stop selling gas to Singapore.

One of the strategies implemented by ASEAN to address the gas supply gap is to expand the TAGP project’s LNG activities by developing floating storage and regasification units (FSRU) and regasification terminals (Suwanto & Suryadi, 2021). Currently, the LNG regasification capacity in ASEAN has reached 38.75 MTPA with an additional 11 MTPA capacity in the development process and 50 MTPA capacity in planning, so that it is expected to meet LNG demand until 2035 (ASEAN Centre for Energy, 2020). Under the TAGP, the Model LNG Sales and Purchase Agreement (SPA) and the LNG Master SPA have been created as references for long-term LNG contracts (ASEAN Centre for Energy, 2020). Recently, an initiative has been built for the implementation of small-scale LNG and LNG bunkering by ASCOPE. The TAGP MoU should be amended by adding provisions related to LNG regasification because the current MoU only regulates aspects related to interconnection pipelines. It should be noted that, technically, LNG and gas pipelines have different distribution characteristics where LNG is transported via tankers from one regasification terminal to another. Thus, so that there is at least a legal basis regarding the addition of TAGP activities, the TAGP MoU should also regulate LNG regasification as the pipeline is regulated in the instrument.

At this point, it can be concluded that although ASEAN is facing a gas supply crisis, the TAGP project will be maintained with the solutions described previously. It can be estimated that countries will continue to cooperate to develop the TAGP project even if gas supply through pipelines is no longer able to meet the needs in the ASEAN region because other alternatives have been taken in the form of buying and selling LNG. Even though there has been a clause that states that the state has the right to leave the MoU TAGP in Article VIII. Final Provisions, it seems
that no country will leave the MoU TAGP just because of the challenges that ASEAN is currently facing. Thus, the TAGP MoU will still be enforced.

With the termination of pipeline gas exports from South Sumatra to Singapore, the South Sumatra to Singapore pipeline will no longer be operational. This means that there are currently 13 (thirteen) interconnection pipelines in ASEAN, while on the other hand, the construction of new pipelines is a key strategy for fulfilling gas supply in this region. Despite these conditions, it is estimated that Indonesia will still be part of the TAGP MoU because Indonesia is still involved with two other gas pipeline projects. Even if Indonesia is not involved, Indonesia can still be a party to the TAGP MoU as a form of its support for the project, because, on the other hand, Brunei, the Philippines, Cambodia, and Laos are not directly involved in the sale and purchase of gas in the TAGP but are still parties to the TAGP MoU. From a legal perspective, this condition will only affect the end of the gas sale and purchase agreement between ConocoPhillips as a seller in Indonesia and Gas Supply Pte Ltd in Singapore.

CONCLUSION

A harmonious legal arrangement governing cross-border pipelines at the global level has yet to exist. Currently, countries depend on the arrangements consisting of IGA and HGA as the legal basis for their cross-border pipeline projects. Meanwhile, a different arrangement is practiced in the Southeast Asia region as the cooperation of TAGP is based on an MoU made by ASEAN member countries and the whole selling and buying is done on a commercial basis. However, since the gas supply in the region has a decreasing trend, TAGP cooperation has expanded to LNG activity as well. Such cooperation becomes complex and causes legal uncertainty because pipelines and LNG are two different activities and thus should be governed by different legal regimes. Therefore, the author concludes that it is important to separate the activities of gas pipelines and LNG into different projects with different legal bases. For the current TAGP, for the sake of legal certainty, it is recommended to follow the commonly practiced legal arrangements (IGA and HGA) to govern cross-border pipelines.

REFERENCE


