

RETHINKING LEGAL STATUS OF POLYTECHNIC IN THE LAW OF EDUCATION SYSTEM

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Abstract

The legal status of polytechnic has been fundamentally changed from time to time. After the Law of National Education System Number 20/2003 and the Law of Higher Education Number 12/2012 came into effect, the polytechnic has been granted a new legal status that offers more diverse programs at various levels. Since then, polytechnic could conduct vocational diploma programs and degree programs in applied sciences from graduate to postgraduate. This legal status raises legal problems whether polytechnic is a higher education institution in vocational or applied sciences. Best education practices in some countries classify applied sciences higher education as academic education, not vocational education. This doctrinal research paper then will examine this legal problem using statute, historical and comparative approach, in the light of the Development Legal Theory. This study shows that the legal status of polytechnic is heavily dependent on government policy. In the absence of a clear and firm ground policy of vocational education, the legal status of the polytechnic has been interpreted differently from time to time. The government ought to reset the vocational education policy and then reform the law of the national education system. Therefore, the legal status of the polytechnic will be more sustainable and have better legal certainty accordingly. Regarding the recent development of higher education, it will be better if the government constitutes polytechnic as a higher education institution in applied sciences.

Keywords: *Polytechnic, National Education System, Higher Education, Vocational Education & Development Legal Theory (DLT).*

1. INTRODUCTION

As a formal education institution, the polytechnic was first established in 1975 as a part of the cooperation between the Republic of Indonesia and Switzerland to develop vocational higher education¹. The main idea of this project is to fulfill the demand of middle technicians who can support the engineers in executing the project². Polytechnic then offered a 3-year non-degree program to equip graduates of high school with practical technical skills. So, the level of polytechnic graduates was lower than bachelor but higher than high-school graduates. At that time, the legal status of polytechnic was a vocational education institution governed under a university or institute of technology.³

The Law of National Education System Number 2/1989 (the LNES 1989)⁴ granted a new legal status to polytechnic as an autonomous vocational higher education institution in 1989. State polytechnics established before 1989 had had to do a transitional stage

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¹ "Sejarah," *Polman Bandung*, accessed December 20, 2020, <https://polman-bandung.ac.id/sejarah-polman/>.

² "Sejarah," *Politeknik Negeri Bandung*, accessed December 20, 2020, <https://www.polban.ac.id/sejarah/>.

³ *Ibid*

⁴ Indonesia, *Law Number 2 Year 1989 Concerning National Education System*, 1989.

accordingly. Furthermore, the government enacted the Law of National Education System 2003 (after this- the LNES 2003)⁵ to replace the LNES1989.

Following the new national education system, the government passed the Law of Higher Education 2012 (the LHE 2012)⁶. This law expanded the scope of vocational higher-education programs from diploma to applied sciences degree programs. This development enables polytechnic to conduct programs in applied sciences from bachelor level to postgraduate level. Meanwhile, Article 59 of the LHE 2012 still declares that polytechnic is a vocational higher education institution. The new interpretation of vocational education affects the legal status of polytechnic since the degree program is commonly known as academic education. The legal status of polytechnic becomes fuzzy accordingly.

The issue related to polytechnic's legal status is essential in higher education because it will affect further polytechnic development in Indonesia. The data shows that the total number of polytechnics has gradually increased from time to time. From 1975 until 2000, there had been 47 polytechnics established⁷. Moreover, the statistic of higher education in 2019/2020 exhibit that the number of polytechnics has reached 304 institutions⁸. That is why this issue is urgent to be solved.

This study is therefore intended to determine what the ideal legal status of polytechnic is. The discussion in this paper then will examine how polytechnic should be defined in the light of the education policy and law. After being analyzed, this study will conclude whether polytechnic should be granted legal status as a vocational education institution or an academic one. With an appropriate and firm legal status, the future development of polytechnic will be more sustainable accordingly.

Furthermore, this study will employ a theory formulated by Mochtar Kusumaatmadja known as the Development Legal Theory (DLT)⁹. The basis of his idea refers to sociological jurisprudence thoughts related to law and society¹⁰. According to Kusumaatmadja, the law should be corresponding with society¹¹. Since the development in society is dynamic and sometimes going faster than law, Kusumaatmadja thought that the function of law was to respond to what already happened and anticipate what would happen¹². He mentioned that law, therefore, could be utilized as a development instrument¹³. Law will oversee the

⁵ Indonesia, *Law Number 20 Year 2003 Concerning National Education System*, 2003.

⁶ Indonesia, *Law Number 12 Year 2012 Concerning Higher Education*, 2012.

⁷ Kementerian Pendidikan dan Kebudayaan Republik Indonesia, *Perkembangan Pendidikan Tinggi Tahun 1999/2000 - 2013/2014 - Buku 2* (Jakarta: Pusat Data dan Statistik Kementerian Pendidikan dan Kebudayaan, 2015), p. 16.

⁸ dan Pendidikan Tinggi Kementerian Riset, Teknologi, *Statistik Pendidikan Tinggi 2019* (Jakarta: Pusdatin IPTEK DIKTI, 2019), p. 4.

⁹ Mochtar Kusumaatmadja, *Konsep-Konsep Hukum Dalam Pembangunan* (Bandung: P.T. Alumni, 2006), pp. 75-85.

¹⁰ Lili Rasjidi and I. T. Rasjidi, *Pengantar Filsafat Hukum* (Bandung: Mandar Maju, 2007), p. 80.

¹¹ Romli Atmasasmita, "Tiga Paradigma Hukum Dalam Pembangunan," *Jurnal Hukum Prioris* 3, no. 1 (2012): 2–26, <https://trijurnal.lemlit.trisakti.ac.id/prioris/article/view/354>, p. 5.

¹² Kusumaatmadja's thought was influenced by Roscoe Pound, who stated that law often did not respond quickly to the dynamic changing of the society Mochtar Kusumaatmadja, *Pembinaan Hukum Dalam Rangka Pembangunan Nasional* (Bandung: Binacipta, 1975), pp. 3-4; Brian Z. Tamanaha, "Sociological Jurisprudence Past and Present," *Law & Social Inquiry* 45, no. 2 (May 12, 2020): 493–520, <https://doi.org/10.1017/lsi.2019.26>, pp. 495-498.

¹³ Kusumaatmadja, *Pembinaan Hukum Dalam Rangka Pembangunan Nasional*.

development process and direct all the elements to the main objectives of development¹⁴. The function of law is then to ensure the implementation of the development process in order¹⁵. So, legal certainty is critical in this stage to create sustainability of development¹⁶.

The LNES 2003 and the LHE 2012 can be said as instruments in education development. These laws have imposed a new direction for polytechnic as a vocational higher education institution. Thus, the DLT can be applied as a theoretical framework in this study. It is expected that the analysis of this study will find the root cause of the main problem and some alternative solutions. Then, the ideal legal status of polytechnic can be determined accordingly.

2. RESEARCH METHODS

This study will examine law from an internal perspective and put legal norms as the main object. This kind of method is commonly known as normative legal research¹⁷. Unlike sociological legal research, which uses primary data, this method will explore and exploit relevant materials from three legal sources¹⁸.

The first is the primary legal source consisting of statutes, such as constitution, act, government regulation, presidential regulation, and other applied regulations. Furthermore, this study locates some theories and juridical thoughts from law books and journals as the secondary legal sources to be used as the basis of analysis and the interpretation of the law. This study puts the DLT as the leading theory. So, this research method will include some relevant literature and works to give a deeper understanding of the framework of the DLT. Finally, the last one is the third legal source comprising some other materials such as encyclopedias and dictionaries. These materials are employed to provide a better experience of some essential terms related to this study.

Moreover, the approaches used in this research are statute approach, historical approach, and comparative approach¹⁹. The statute approach explores relevant educational statutes, such as the LNES 2003, the LHE 2012, and some related regulations. This approach will scrutinize the relevant statutes to understand the coherency of these acts in the Indonesian legal system.

The second approach is the historical approach to understanding the transformation of polytechnic's legal status from the first polytechnic established until now. The development of the legal status of polytechnic can be divided into three stages: from 1975-1988, during 1989-2002, and after 2003. Some provisions from regulations before LNES 2003 and LHE

¹⁴ Ibid.

¹⁵ Rasjidi and Rasjidi, *Pengantar Filsafat Hukum*; Shidarta, ed., *Mochtar Kusumaatmadja Dan Teori Hukum Pembangunan: Eksistensi Dan Implikasi* (Jakarta: Epistema Institute, 2012), pp 123-125.

¹⁶ Kusumaatmadja, *Pembinaan Hukum Dalam Rangka Pembangunan Nasional*; Sudikno Mertokusumo, *Mengenal Hukum: Suatu Pengantar* (Yogyakarta: Liberty, 1996), pp. 32-33.

¹⁷ Johny Ibrahim, *Teori Dan Metodologi Penelitian Hukum Normatif* (Malang: Bayumedia, 2007); Sidharta, "Penelitian Hukum Normatif: Analisis Penelitian Filosofikal Dan Dogmatikal," in *Metode Penelitian Hukum: Konstelasi Dan Refleksi*, ed. S. Irianto and Shidarta (Jakarta: Yayasan Obor Indonesia, 2009), pp. 142-143.

¹⁸ Soerjono Soekanto and Sri Mamudji, *Penelitian Hukum Normatif Suatu Tinjauan Singkat* (Jakarta: Rajawali Press, 2015), p. 4.

¹⁹ Ibrahim, *Teori Dan Metodologi Penelitian Hukum Normatif*, pp. 300-302.

2012 will be traced back and explored to get a historical background of the development of the legal status of the polytechnic.

Eventually, the comparative approach is chosen as the third approach. Based on history, polytechnics development in Indonesia resulted from the bilateral cooperation between the Republic of Indonesia and the Confederation of Switzerland and some other countries.²⁰ Accordingly, a comparative study is needed to get the original conception of polytechnic and vocational education. Some regulations and best practices from Switzerland, Germany, England, Singapore, and Japan will be compared with Indonesia.

3. ANALYSIS AND DISCUSSION

3.1. Overview of Development Legal Theory

Mochtar Kusumaatmadja, one of the prominent legal scholars in Indonesia, introduced his thought of law as a development instrument (DLT) in the early seventies²¹. His theory emphasizes three essential principles, such as comprehensiveness, inclusiveness, and applicableness²². Firstly, the law could not be drafted based on conceptual thinking merely.²³ Empirical matters shall be taken as the primary basis as well. Hence the content of the law will be comprehensive and conformed with the reality in society.²⁴ Secondly, law-making shall consider not only legal matters but also other elements from other fields.²⁵ Society is dynamic because of many factors such as economic, cultural, and other related factors. Thus, lawmakers shall understand both law and non-law factors. Finally, the applicability of law is significant. Law should be able to respond, mitigate, and anticipate the dynamic changes of society²⁶. Therefore, laws will be able to direct and control the development of society²⁷.

The framework of this theory assumes that every development will change society²⁸. Some distractions may happen as an effect of the development process. This transitional situation often disturbs the execution of the development plan. Thus, the government shall set forth a sound policy and regulations to ensure the implementation of the development programs in order²⁹. Therefore, in this sense, the law can be employed as an instrument that states development goals and gives clear directions to keep the process in order.³⁰

²⁰ Polman Bandung 'Sejarah'.

²¹ Kusumaatmadja, *Pembinaan Hukum Dalam Rangka Pembangunan Nasional.*, pp. 75-79.

²² Lili Rasjidi and I. B. W. Putra, *Hukum Sebagai Suatu Sistem* (Bandung: Mandar Maju, 2003), p. 126; Atip Latipulhayat, "Khazanah: Mochtar Kusumaatmadja," *PADJADJARAN Jurnal Ilmu Hukum (Journal of Law)* 1, no. 3 (2014): 626–642, <http://jurnal.unpad.ac.id/pjih/article/view/7100>., pp. 629-630.

²³ *Ibid.*

²⁴ *Ibid.*

²⁵ *Ibid.*

²⁶ Atip Latipulhayat, "Roscoe Pound," *PADJADJARAN Jurnal Ilmu Hukum (Journal of Law)* 1, no. 2 (2014): 413–424, <http://jurnal.unpad.ac.id/pjih/article/view/7083>., pp. 413-414.

²⁷ Kusumaatmadja, *Konsep-Konsep Hukum Dalam Pembangunan.*, pp. 89-91.

²⁸ Kusumaatmadja, *Pembinaan Hukum Dalam Rangka Pembangunan Nasional.*, pp. 2-5.

²⁹ *Ibid.*; Shidarta, *Mochtar Kusumaatmadja Dan Teori Hukum Pembangunan: Eksistensi Dan Implikasi.*

³⁰ *Ibid.*

The government, theoretically, has the authority to determine the policy by itself. However, the policy-making process shall involve all related stakeholders. Kusumaatmadja mentioned that this kind of process is known as ‘open process’ which means that the process considers legal matters and other elements from non-legal fields³¹. This process needs constructive collaborations from jurists, legal scholars, and experts of some related areas. Thus, the involvement of all associated stakeholders will give a solid basis to the formulated law. The framework above shows that the idea of DLT is strongly influenced by sociological jurisprudence thoughts and some ideas from American scholars³². Kusumaatmadja’s thought was of the idea of Eugen Ehrlich, Roscoe Pound, and ‘New Haven School’ such as Filmer Northrop, Harold Lasswell, and Myres McDougal³³.

At first glance, his idea of law as a development instrument seems similar to the idea of law as a tool of social engineering formulated by Pound. Nevertheless, he argued that his thought was different from the Pound. Firstly, the meaning of ‘a tool of social engineering’ was too mechanical³⁴. It seemed that society could be shaped and developed by the law solely. Meanwhile, there were many instruments involved in every development. So, the law, in his view, was not the only instrument in development³⁵. Secondly, he also argued that Pound’s study was based on the atmosphere of the common law system³⁶. Law to this extent was mainly expressed in the judge’s decisions. The role of judges was very crucial accordingly. The situation in Indonesia and other civil law countries was different. The role of statutory law was dominant.

Kusumaatmadja also acknowledged that his thought was in line with the views of New Haven Scholars, such as Northrop, Myres, and McDougal³⁷. Filmer Northrop was a legal scholar that triggered lawmakers to deem the culture when adopting law from other countries³⁸. Meanwhile, Harold Laswell and Myres McDougal urged the critical role of policy in law-making, which is later known as policy-oriented theory³⁹. Northrop

³¹ Kusumaatmadja, *Konsep-Konsep Hukum Dalam Pembangunan*. pp. 83-84.; Sidharta, *Mochtar Kusumaatmadja Dan Teori Hukum Pembangunan: Eksistensi Dan Implikasi*. pp. 331-333.

³² Rasjidi and Rasjidi, *Pengantar Filsafat Hukum*, 66–67; D. Darmodiharjo and Sidharta, *Pokok-Pokok Filsafat Hukum* (Jakarta: Gramedia, 2005), 128–130; Rasjidi and Putra, *Hukum Sebagai Suatu Sistem*, 182–183; Sidharta, “Penelitian Hukum Normatif: Analisis Penelitian Filosofikal Dan Dogmatikal,” 337; Shidarta, *Refleksi Tentang Struktur Ilmu Hukum* (Bandung: Mandar Maju, 2009), 7; A. Cahyadi and E. F. M. Manulang, *Pengantar Ke Filsafat Hukum* (Jakarta: Kencana, 2015), 119–121.

³³ The term ‘New Haven School’ refers to the ideas and thoughts from some professors at Yale University – Law School. Kusumaatmadja, *Konsep-Konsep Hukum Dalam Pembangunan*; Jack van Doren and Christopher J. Roederer, “McDougal-Lasswell Policy Science: Death and Transfiguration,” *Richmond Journal of Global Law & Business* 11, no. 2 (2012): 148, <https://scholarship.richmond.edu/global/vol11/iss2/2>; Rasjidi and Putra, *Hukum Sebagai Suatu Sistem*; M. D. Rabban, “Pound’s Sociological Jurisprudence: European Roots and American Applications,” in *Public Law & Legal Theory Research Paper Series No. 630* (Texas: University of Texas School of Law, 2015), 113–116.

³⁴ Kusumaatmadja, *Konsep-Konsep Hukum Dalam Pembangunan*.

³⁵ *Ibid.*

³⁶ *Ibid.*

³⁷ Rasjidi and Putra, *Hukum Sebagai Suatu Sistem*, 182–184.

³⁸ Shidarta, *Refleksi Tentang Struktur Ilmu Hukum*, 330.

³⁹ Rasjidi and Putra, *Hukum Sebagai Suatu Sistem*.

stated that law could not be separated from society and its culture⁴⁰. Every country had a unique atmosphere related affected its positive law.

Consequently, other countries could not automatically adopt its law unless some adaptation had been made.⁴¹ Therefore, the adopted law should be adjusted in conformity with the situation of the society in the respected country.⁴² Kusumaatmadja reminded lawmakers to look and pay attention to domestic values.⁴³ Implementing those regulations without adjustment will face some obstacles.⁴⁴ These arguments clearly showed that the culture-oriented approach introduced by Northrop persuaded his thought.

Furthermore, Kusumaatmadja realized that a sound policy that conformed with society's needs would be an essential basis of a good law.⁴⁵ In this sense, his thought was influenced by the policy-oriented approach of Lasswell and McDougal⁴⁶. It was crucial in a policy-making process to consider multi-dimension factors, including non-law factors⁴⁷. Therefore, the role of stakeholders was very significant in formulating such a policy. A collaborative effort between academicians and practitioners, both from law and non-law fields, was material in every law-making process.⁴⁸

After having the overview above, three insights can be pulled out from this theory. First, the law based on a good policy will be an essential instrument in development. Second, a good law shall be based on both law and non-law factors. Third, the good law can be utilized as an instrument to direct and control the development.

Eventually, the function of law in development is to ensure sustainability. It means that legal certainty is vital in the development process. However, it does not mean that legal certainty will put aside other fundamental values of law, such as justice and expediency⁴⁹. After examining the DLT, the author thinks this theory will suit this study because its central issue is education development. The LNES 2003 and the LHE 2012 have been used as an instrument of higher education development. One of the goals of

⁴⁰ His thought was triggered by the domination of western law in international law after the World War II. See Edward McWhinney, "Western and Non-Western Legal Cultures and the International Court of Justice," *Washington University Law Review* 65, no. 4 (1987): 873-874, https://openscholarship.wustl.edu/cgi/viewcontent.cgi?article=2112&context=law_lawreview; F. S. C. Northrop, "The Method and Some Findings of Anthropological Jurisprudence," *Louisiana Law Review* 16, no. 2 (1956): 455, <https://digitalcommons.law.lsu.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=2365&context=lalrev>.

⁴¹ Northrop, *Ibid.*

⁴² *Ibid.*

⁴³ Kusumaatmadja, *Loc.cit.*

⁴⁴ See also Shidarta, *Loc.cit.*

⁴⁵ Rasjidi & Putra, *Loc.cit.*

⁴⁶ Harold D. Lasswell and Myres S. McDougal, "Jurisprudence in Policy-Oriented Perspective," *University of Florida Law Review* XIX (1966): 486-487, https://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=3594&context=fss_papers&httpsredir=1&referer=3.

⁴⁷ Harold D. Lasswell and Myres S. McDougal, "Criteria for a Theory About Law," *Southern California Law Review* 44 (1971): 374-375; Lasswell and McDougal, "Jurisprudence in Policy-Oriented Perspective," 500-501.

⁴⁸ *Ibid.*; see also Shidarta, *Op.cit.* p.332

⁴⁹ Satjipto Rahardjo, *Ilmu Hukum* (Bandung: P.T. Citra Aditya Bakti, 2000), 45-47; Heather Leawoods, "Gustav Radbruch: An Extraordinary Legal Philosopher," *Washington University Journal of Law & Policy* 2 (2000): 492-494, https://openscholarship.wustl.edu/cgi/viewcontent.cgi?article=1516&context=law_journal_law_policy.

these laws is to reform polytechnic. Therefore, the framework of this theory will be compatible to be used in analyzing legal issues related to the development of polytechnic, especially its legal status.

3.2. Regulation of Polytechnic in Indonesia

3.2.1. From 1975 – 1988

The earliest polytechnic project was carried out due to cooperation between Indonesia and the Swiss government in 1973.⁵⁰ The first polytechnic was operated in 1975 under Institut Teknologi Bandung (hereinafter- ITB).⁵¹ So, the name of this institution was Politeknik Mekanik Swiss-ITB (hereinafter- PMS-ITB). The program offered in this polytechnic was a 3-year Diploma which implementing Swiss' vocational education model. As a new type of higher-education institution, polytechnic had not been recognized by prevailing law.⁵² After being officially inaugurated by Minister of Education and Culture Decree 0416/U/1981, PMS-ITB was bestowed legal status as a vocational education institution governed under higher education institutions.⁵³

After successfully establishing the first polytechnic, the government started the Polytechnic Project I based on the General Director of Higher Education of Ministry of Education and Culture Decree No. 03/DJ/Kep/1979. There were six new polytechnics to be established within six higher education institutions. All Polytechnics in the Project I was officially launched in 1985 and given the same legal status as the first polytechnic by the General Director of Higher Education of Ministry of Education and Culture Decree No. 115/Dikti/Kep/1984.

The government continued the expansion of the polytechnic through the Polytechnic Project II. According to the General Director of Higher Education Decree Number 14/Dikti/Kep/1984 and Number 80/Dikti/Kep/1985, Polytechnic Project II started developing vocational education in engineering, business administration, agriculture. There were eight-teen polytechnics to be established in this project. Referring to the General Director of Higher Education Decree Number 14/Dikti/Kep/1984 and Number 80/Dikti/Kep/1985, all polytechnics established in this project were given the same legal status as in the previous one as higher education institutions governed under university or institute of technology.

Instead of this project, a polytechnic was formed by a bilateral agreement between Institut Teknologi Sepuluh-Nopember (ITS) with Japan International Cooperation Agency (JICA) in 1986⁵⁴. The total of state polytechnic established by the government from 1975-1986 was 26 institutions. All of them offered a 3-

⁵⁰ See Polman Bandung 'Sejarah', <https://polman-bandung.ac.id/sejarah-polman/> accessed on 20 December 2020.

⁵¹ *Ibid.*

⁵² According to Article 6 of The Law of Higher Education Institution 1961 (the LHEI 1961), polytechnic was not of four types of higher education institutions recognized by law.

⁵³ This decree had retroactive effect and declared that PMS-ITB was officially launched in 1975.

⁵⁴ "Tentang PENS," *PENS*, accessed May 25, 2020, <https://www.pens.ac.id/tentang-pens/>.

year diploma program in various fields of vocational education. During this period, the legal status of each state polytechnic was a higher education institution governed under university or institute of technology.

3.2.2. During 1989-2002

The development of polytechnic came into the second stage when the LNES 1989 was enacted. The legal status of polytechnic was formally stated in Article 16 of the LNES 1989 as one of the higher education institutions in Indonesia. This article stated that higher education was further for secondary-level graduates who conducted academic and professional track education. Polytechnic was mentioned in Article 16 as a higher education institution conducting applied education. Furthermore, Article 16 (3) & (4) connoted the term 'applied education' as professional education.

Article 16 and 17 of The LNES 1989 upheld the definition of polytechnic used in the Polytechnic Project I and II. These articles stated that polytechnic was a professional education institution that offered diploma programs and specialist programs. Article 6 of the Government Regulation Number 30/1990 (after this-GR 30/1990) declared that the diploma programs consisted of four levels from 1-year program to 4-year program. Like in the early stage, the diploma program was still categorized as a non-degree program. Nevertheless, based on Article 18 of the LNES 1989, the graduates from the diploma program would be conferred a professional attribute.

Following Article 16, the government enacted the Minister of Education and Culture Decree Number 0313/O/1991, which imposed that all state polytechnics would have official status as higher education institutions in 1993. This development stage had created a significant impact on polytechnic's milestones. Finally, this institution was officially recognized as a vocational higher education institution. However, it did not mean that full autonomous status would be given immediately to these polytechnics. The government decided that respected universities/institutes still supervised state polytechnic administration for some time. Full autonomy status would be granted to such polytechnics starting from 1997.

3.2.3. After 2003

The LNES 2003 has created some fundamental changes in the national education system. The term vocational education was officially introduced. According to the elucidation of Article 15 of the LNES 2003, vocational education is a kind of education specially designed to equip students with applied knowledge and skill related to particular jobs in some levels in which its highest qualification level is equivalent to a bachelor in academic education. The LNES 2003 also states in Article 20 (1) that polytechnic is one of the higher education institutions in the National Education System.

After having a very long process, the government eventually passed the LHE 2012. Following Article 59, the legal status of polytechnic is reaffirmed as a

vocational higher education institution⁵⁵. However, regarding Article 16, the kind of programs offered in vocational education in the LHE 2012 have been expanded from diploma to master and doctoral programs in applied sciences. This article creates confusion in education practices because degree programs in applied sciences/arts are commonly known as academic education. The term vocational introduced by the LHE 2012 is getting fuzzy accordingly.

This ambiguous definition of vocational education in Indonesia has substantially impacted the polytechnic's legal status. On the one hand, the polytechnic is deemed as a vocational higher education institution. On the other hand, the government has developed polytechnic somehow into an applied sciences higher education institution⁵⁶. The legal status of polytechnic is getting obscured and uncertain accordingly. Thus, to end this problem, the government shall decide first the legal term of vocational education. Then the most appropriate legal status for polytechnic can be determined. A firm legal status for polytechnic is vital. Otherwise, further development of polytechnic will be facing unclear direction.

3.3. The Ideal Legal Status of Polytechnic

The regulations from a historical perspective show that there have been three different legal statuses of polytechnic since the first initiation. Polytechnic firstly appeared as a vocational institution governed by existing higher education institutions such as universities and institutes. The position of polytechnic was then equivalent to a faculty or school within a university or institute. As a result, the entity of polytechnic was embedded in its parent organization. In the absence of such autonomy, polytechnic could not determine its operational policies by itself. Therefore, the first legal status of the polytechnic is a vocational education institution under a university/institute that offers non-degree programs.

Polytechnic, at this stage, conducted vocational non-degree programs, which referred to the Switzerland education model⁵⁷. However, the term polytechnic used in Indonesia has a different meaning from such a term in Switzerland⁵⁸. The vocational

⁵⁵ It means Indonesia implements dual-track system. This system separates students into two different pathways. See the further explanation of tracking system in Paryono, "A Cross-National Analysis of When and How Vocational Education Is Offered," *SEAMEO VOCTECH Journal* (2005): 41–43, <https://online.anyflip.com/pgln/slqh/index.html>; More explanation regarding the history of education in Indonesia, see P. Basundoro, "Sejarah Pendidikan Tinggi Di Indonesia," accessed August 3, 2020, <http://helm-mmpt.pasca.ugm.ac.id/opini/opini/sejarah-pendidikan-tinggi-di-indonesia>.

⁵⁶ See Article 16, the LHE 2012.

⁵⁷ M. T. C. Henniges and C. Kleinert, *Tracking and Sorting in the German Educational System* (Bamberg: Leibniz Institute for Educational Trajectories, 2019), 4; See also R. H. Strahm, *Vocational and Professional Education and Training in Switzerland* (Bern: HEP, 2016), 82.

⁵⁸ P. Schellenbauer, "Combining Effort for Switzerland's Higher Education System," accessed August 3, 2020, <https://www.avenir-suisse.ch/en/combining-efforts-switzerlands-higher-education-system/>; Thomas Dessinger, "The German 'Philosophy' of Linking Academic and Work-Based Learning in Higher Education: The Case of the 'Vocational Academies,'" *Journal of Vocational Education & Training* 52, no. 4 (December 20, 2000): 607–609, <http://www.tandfonline.com/doi/abs/10.1080/13636820000200134>.

non-degree program in Switzerland was only offered by a professional college⁵⁹. The term polytechnic in Indonesia was somewhat similar to such a term in England and Singapore⁶⁰.

Since the enactment of LNES 1989, the polytechnic had officially become a vocational higher education entity. Polytechnic could offer four kinds of Diploma Programs in vocational education. Graduates from each program were awarded professional attributes, not degrees. After the LNES 2003 was enacted, the legal status of polytechnic was reaffirmed as a vocational higher education institution. Nevertheless, the problem occurred when vocational education at the higher education level was formally expanded by the LHE 2012.⁶¹ The new interpretation of vocational education has created ambiguity concerning the essence of vocational education. First, when the 4-Year Diploma Program is officially stated as Bachelor of Applied Sciences/Arts Program, it seems that the scope of this program has been expanded beyond the boundaries of vocational education. Second, the provision that scaling up the program to the postgraduate level shows that the definition of vocational education has been partially shifted to applied sciences/arts education. Polytechnic eventually becomes a higher education institution that runs both vocational education programs and academic education programs. The legal status of polytechnic is getting unclear accordingly.

The LHE 2012, in the light of the DLT, can be seen as an instrument of higher education development.⁶² This law ideally should have been based on a clear and firm vocational education policy. However, such a policy has never been wholly made since the first polytechnic was established. Some fundamental aspects of vocational education, such as the meaning of vocational education and polytechnic, have not been clearly defined. It seems there has not been a common understanding among stakeholders regarding this matter.

Furthermore, in the absence of ground policy, the government expanded the meaning of vocational education in the LHE 2012. The scope of vocational higher education programs imposed in this law is not in accordance with standard practices of vocational education. Some education programs eventually deal with higher degree programs that are commonly conducted in academic education. This situation has impacted the legal status of the polytechnic.

To end this problem, the government shall draw up a new policy on vocational education. When formulating the new policy, the government shall consider both law and non-law factors to align with the best practices in education.⁶³ This policy will give a solid basis for the new law. As a vocational education development instrument, this

⁵⁹ Strahm, *Loc.cit.* See also Article 2 (b) & 26 of the Federal Act of Vocational and Professional Education and Training (Swiss)

⁶⁰ Elaine Penn, *Education for Professional Life* (London: University of Westminster Press, 2017), 13–17; Pak Tee Ng, *Learning from Singapore: The Power of Paradoxes* (New York: Routledge, 2017), 28; “Singapore,” *SEA-VET*, accessed September 25, 2020, <https://sea-vet.net/singapore>.

⁶¹ See Article 16 of the LHE 2012

⁶² See Kusumaatmadja, *Op.cit.*, pp. 89-91.

⁶³ See the ‘open policy’ mentioned by Kusumaatmadja, *Op.cit.* pp. 83-84; Shidarta (2), *Op.cit.* pp. 331-332; See the policy-oriented approach in Rasjidi & Putra, *Loc.cit.*; Lasswell & McDougal, *Op.cit.* pp. 500-502 and Lasswell & McDougal, (2), *Op.cit.* pp. 374-376.

law will create sustainability and legal certainty along with expediency and justice.⁶⁴ The ideal legal status of the polytechnic will then be determined accordingly.

There are some issues to be concerned about the new policy. Firstly, the government shall review and decide which education track system will be implemented. Then, secondly, the government shall determine the meaning of vocational education and its scope. Finally, the government shall rethink the definition of the polytechnic.

Regarding the first issue, the dual/separated system has been implemented in Indonesia since many years ago. Article 7 point 3 of the Education Law Number 12/1954 showed that, in the early stage, the separated track had been implemented at the secondary school level after Indonesia became an independent country. This separated system was then reaffirmed in the LNES 1989. However, the policy and regulations related to enrolment in the higher education level were unclear. Students, notwithstanding their pathways, could apply to polytechnic. The differentiation of higher education institutions based on the separated system has been gradually immaterial.

According to Articles 15, 18, and 20 of the LNES 2003, Indonesia still implements the separated track system. However, in Indonesia, this system is based on student choice.⁶⁵ Students here can decide whether they will continue their study to general education or vocational education. Meanwhile, in Switzerland, Germany, and Singapore, the implementation of the separated track system is based on a regulated system.⁶⁶

This implementation of the education track policy in Indonesia looks not in line with standard education practices. The government then shall rethink which track system will be suitable for Indonesia. If the separated track is chosen again, the government shall consider that each pathway must be implemented consistently. It means vocational education will be delivered by vocational education institutions only. Its programs in the higher education level will be non-degree programs that focus on practical skills and knowledge in a particular area related to specific jobs. Concerning the current education policy in which the government vows the vital role of vocational education, it will be better if the government decides to stay on a dual-track system.⁶⁷ However, some operational policies and regulations that are not in line with the dual-track system should be reset and renewed.

The next issue to be solved is the meaning of vocational education and its scope. This issue has been crucial after the LHE 2012 introduced the applied sciences program within the vocational education system. The applied sciences program in the LHE 2012 consists of bachelor (also known as Diploma 4), master, and doctor. The definition of vocational education becomes quite complicated since vocational education, unlike academic education, does not deal with degree programs. It seems the term vocational education in Indonesia has been widely construed. Since the term applied sciences

⁶⁴ See Rasjidi & Rasjidi, *Op.cit.* pp. 80-82 and Atmasasmita, *Op.cit.* pp. 5-6.

⁶⁵ Paryono, *Op.cit.* pp. 44-45

⁶⁶ *Ibid.*

⁶⁷ See President Regulation Number 2/2015 concerning the Development Plan 2015-2019.

program has been known in the education system of some countries, a comparative study is beneficial to get the original idea of applied sciences program.

The applied sciences program can be found in German-speaking countries.⁶⁸ This program was designed in response to industry and business sectors that need academic higher education graduates with more practical skills. The government then established the university of applied sciences conducting a particular program that educates and trains students with a more practical approach.⁶⁹ This program comprises bachelor level and master level. Since this program deals with the degree, the applied sciences program is then categorized as academic education.

Meanwhile, the current development of higher education shows that the trend of applied sciences education has been increased due to the convergence of academic and vocational education⁷⁰. The development of technology and the complexity of industry and business affected some academic programs to use a more applied approach⁷¹. In contrast, some vocational education programs also increase theoretical content to equip the students with advanced technology. It seems the dichotomy of academic and vocational to some extent has been considered as immaterial.⁷² Furthermore, some countries form a new type of university known as ‘professional university’, which offers academic programs containing some vocational subjects.⁷³

Learning from higher education practices in Germany, Switzerland, England, and some other European countries, it is clear that degree program is only conducted by academic education institutions⁷⁴. Notwithstanding the more practical programs, degree programs conducted by applied sciences or professional universities are determined as academic education programs. Even a unique degree program combining academic and vocational subjects in Germany run by the cooperative university (dual-Hochschule) is also classified as academic education⁷⁵.

The situation in single-track education countries such as the United States of America and Japan is different.⁷⁶ All education programs in secondary school contain both general/academic subjects and vocational subjects.⁷⁷ There is no differentiation

⁶⁸ See Schellenbauer, *Loc.cit* and Deissinger, *Loc.cit*

⁶⁹ *Ibid.*

⁷⁰ CEDEFOP, *The Changing Nature and Role of Vocational Education and Training in Europe (Volume 6: Vocationally Oriented Education and Training at Higher Education Level: Expansion and Diversification in European Countries)* (Luxembourg: Publication Office of the European Union, 2019), 1–9.

⁷¹ The trend of vocationalized academic education is getting popular in some European countries, See *Ibid*; A similar trend is also found in Japan. See in Motohisa Kaneko, “The Formulation of Professional and Vocational Universities: Background and Challenges of a New Institution Type in Japan,” *Japan Labor Issues* 3, no. 13 (2019): 33–34, <https://www.jil.go.jp/english/jli/documents/2019/013-03.pdf>.

⁷² CEDEFOP, *Loc.cit*

⁷³ *Ibid.*

⁷⁴ Dessinger, “The German ‘Philosophy’ of Linking Academic and Work-Based Learning in Higher Education: The Case of the ‘Vocational Academies’”; Schellenbauer, “Combining Effort for Switzerland’s Higher Education System”; John Pratt, *The Polytechnic Experiment: 1965-1992* (Buckingham: The SRHE & Open University Press, 1997), 223–228.

⁷⁵ “History,” *Baden-Wuerttemberg Cooperative State University*, accessed August 5, 2020, <https://www.dhbw.de/english/dhbw/about-us/history>.

⁷⁶ See Kaneko, *Loc.cit*.

⁷⁷ See Paryono, *Loc.cit*.

regarding the type of institution in secondary education. However, an institution is established to deliver vocational education at higher levels, such as community colleges or professional colleges. Nevertheless, all degree programs are only conducted by academic higher education institutions such as universities and institutes.⁷⁸

What can be inferred from the comparative study above, the vocational education program is different from the applied sciences program. The vocational education program is more focused on developing practical skills and competencies related to specific jobs⁷⁹. In other words, vocational education can be understood as ‘workforce education’ or ‘occupational education’ or ‘career and technical education’⁸⁰. Meanwhile, the applied sciences program is specially designed to equip students with practical skills and research skills to develop sciences and technology. That is why applied sciences programs can be delivered at the postgraduate level.

After considering education practices in some countries, the government shall decide that applied sciences program is a part of academic education in the national education system. The convergence of academic and vocational education does not mean the scope of vocational education can go beyond the boundary. This program, therefore, shall be taken out of the scope of vocational education. However, since the content of this program combining some vocational subjects, this program may be open for graduates from both general secondary schools and vocational secondary schools. This non-law factor ought to be concerned when formulating the new policy.⁸¹ Therefore, the meaning of vocational education and applied sciences education in the new policy will align with standard education practices.

Prevailing laws then shall be replaced by the new ones. The term vocational education and its system then will have a more precise legal meaning that conforms with education practices. This new law eventually will also abolish the ambiguous status of applied sciences programs. Since the scope of the vocational area is in education and training, it should be considered to set up a special act on vocational education and training. This particular act will be more comprehensive because it considers national education system laws and respective laws from some ministries such as the ministry of industry, manpower, and other respective ministries. The further development of vocational education and training will be aligned accordingly.

⁷⁸ *Ibid*

⁷⁹ CEDEFOP, *Vocational Education and Training at Higher Qualification Levels* (Luxembourg: Publication Office of the European Union, 2011), 14; United Nations Educational Scientific and Cultural Organization, “TIVETipedia Glossary,” *UNEVOC*, accessed May 2, 2020, <https://unevoc.unesco.org/home/TVETipedia+Glossary/lang=en/filt=all/id=474>.

⁸⁰ Paryono, “A Cross-National Analysis of When and How Vocational Education Is Offered,” 43; Dorothy Harnish and Jurgen Wilke-Schnauffer, “Work-Based Learning in Occupational Education and Training,” *The Journal of Technology Studies* 24 (1998): 21, <https://files.eric.ed.gov/fulltext/EJ574864.pdf>; Ellen Hansen, *Career Guidance: A Resource Handbook for Low- and Middle-Income Countries* (Geneva: International Labour Organization, 2006), 24–26.

⁸¹ See the discussion about non-law factor in the DLT in Kusumaatmadja, *Loc.cit*; Shidarta (2), *Loc.cit*; The influence of policy-oriented approach in the DLT in Rasjidi & Putra, *Loc.cit*; See also the notion of policy-oriented approach in Lasswell & McDougal, *Loc.cit* and Lasswell & McDougal, (2), *Loc.cit*.

Regarding the term polytechnic, there are various definitions in higher education practices. It seems the definition of polytechnic in every country depends upon their education system. Polytechnic in some countries is recognized as a vocational education institution. Nonetheless, in other countries, this institution is defined as an academic education institution. Polytechnic itself was initially introduced by Napoleon⁸². This term was used to name an institution offering special education and training in various technical and traditional craft fields.

As a vocational education institution, polytechnic commonly provides practical education and training only in technical or non-technical areas related to specific jobs or professions. In line with the definition of vocational education, the education program offered by polytechnic is not related to degree programs. Then the duration of its program usually is up to four years or equivalent to bachelor level. This polytechnic is found in England (in its old education system), Indonesia (during 1975 – 2011), and Singapore⁸³.

In contrast, the polytechnic in Switzerland is reckoned as an academic institution. This term is known as another name of the institute of technology⁸⁴. However, after 1995, the polytechnic was also construed as another name of the university of applied sciences⁸⁵. Furthermore, this term has a slightly different meaning in Germany. Polytechnic in this country is not recognized as a synonym of the institute of technology but is better known as a similar term for the university of applied sciences.⁸⁶

Another meaning of polytechnic is also found in Japan. This term has a plain meaning as ‘many technical fields’⁸⁷. This meaning is employed to describe an institution at the secondary or higher education level that offers education and training in various technical fields.⁸⁸ So, there are various educational institutions that use this term, such as polytechnic school, polytechnic college, and polytechnic university. The term polytechnic university is known as one of academic higher education institutions⁸⁹.

Meanwhile, the definition of polytechnic in Indonesia after the LHE 2012 coming into effect is unique. On the one hand, this institution is still stated as a vocational education institution. Nevertheless, the core program of polytechnic seems to be

⁸² L. Preston Mercer and Judith A Ponticell, “Polytechnic Education - A Proposed Key to Regional Economic Development,” *Synesis Journal of Science, Technology, Ethics and Policy* (2012): 46, http://www.synesisjournal.com/vol3_t/Mercer_2012_T45-51.pdf.

⁸³ Regarding polytechnic in England prior 1965, see Penn, *Education for Professional Life*; “Polytechnic in Singapore in Ministry of Education Singapore,” in *Post-Secondary Education* (Singapore: Ministry of Education of Singapore, 2019), 2; Nuffic, *The Education System of Singapore* (The Hague: Nuffic, 2019), 8–10.

⁸⁴ “History,” *EPFL*, accessed May 2, 2020, <https://www.epfl.ch/about/overview/history-of-epfl/>.

⁸⁵ Schellenbauer, “Combining Effort for Switzerland’s Higher Education System”; State Secretariat for Education and Research, *Higher Education in Switzerland* (Bern: SER, 2006), 13–21.

⁸⁶ Deissinger, *Loc.cit.*

⁸⁷ Human Resources Development Bureau, *Overview of Human Resources Development Administration* (Tokyo: MHLW, 2013), 9–10.

⁸⁸ *Ibid*

⁸⁹ JEED, “Polytechnic University,” accessed February 28, 2021, <https://www.uitec.jeed.go.jp/english/index.html#eng03>; For more explanation regarding education system in Japan, see also NIAD-UE, *Overview Quality Assurance System* (Tokyo: National Institution for Academic Degree & University Evaluation, 2009), 6; Nuffic, *The Education System of Japan* (The Hague: Nuffic, 2020), 11.

partially shifted to academic education⁹⁰. Polytechnic can conduct degree programs at various levels, including postgraduate level, instead of several vocational diploma programs. Polytechnic, therefore, becomes a vocational higher education institution that runs both vocational and academic education programs.

The current situation in Indonesia is almost similar to England from 1965 until 1992. During that time when ‘the binary policy and the polytechnic policy’ was implemented⁹¹. Polytechnic, as a vocational education institution, could conduct vocational programs and degree programs simultaneously. These policies finally created some difficulties for polytechnics in managing ‘sandwich’ degree programs in which special approval from the Council for National Academy Awards was needed⁹². Eventually, these policies were terminated. After the Further and Higher Education Act 1992, all degree programs were constituted as academic education⁹³. Moreover, the academic program could only be conducted by the university. Consequently, the legal status of polytechnic had had to be transformed into a university since 1992.

Learning from the experiences above, the government must rethink whether polytechnic in Indonesia will be defined as an academic education institution or vocational education institution. Regarding the proposed legal status of the polytechnic, the government must first decide the education area in which polytechnic should be. This decision is crucial because it will affect the term of the polytechnic. The clear definition of polytechnic will result in a firm legal status. Considering this matter, it would be better if the government decided to choose a definition that conforms with current education practices and its future development.

There are two choices to be decided. First, the polytechnic will be defined as a vocational education institution that conducts non-degree programs. Second, polytechnic will be determined as an applied sciences education institution that offers degree programs at various levels. Applied sciences education at the higher education level is categorized as academic education. Thus, polytechnic, to this extent, is an academic institution. Concerning that academic higher education institutions in Indonesia are eligible, with regards to certain conditions, to conduct vocational education programs as well, it will be better if the government defines polytechnic as an academic higher education institution.

The government's decision on the issues above will eventually create a fundamental change in vocational education in Indonesia. Hence, the current vocational education policy ought to be reset. The government must formulate a new policy on the national education system. Furthermore, the new policy shall be transformed into new education laws in order to get legal force. Eventually, the legal status of the polytechnic, vocational education, and applied sciences program will be more confirmed with best education practices and firmer accordingly. On top of that, it is expected that the future development of polytechnic will be more sustainable.

⁹⁰ See Article 16 (1) & (2) of the LHE 2012.

⁹¹ Pratt, *Op.cit.* pp. 11-13.

⁹² *Ibid.* pp. 223-228.

⁹³ See Articles 74, 76 & 77 of Further and Higher Education Act 1992.

Finally, there are four essential findings in this study. First, some vocational education programs and institutions have partially been adopted from foreign countries without a deep and comprehensive understanding. It seems that the development of vocational education law did not implement a cultural-oriented approach properly⁹⁴. This study reveals that, in the early stage, although the idea and the education model referring to Switzerland, the definition of polytechnic was somewhat similar to England's old education system. Then in the following stage, the vocational higher education system seems to be influenced by the vocational education system in Germany⁹⁵. Then in the final stage, polytechnic seems to be developed into a professional academic institution like German's applied sciences education institutions.⁹⁶ The legal status of the polytechnic has become a quasi-academic vocational education institution. The insight from this finding: adopting education programs from other countries without adaptation will create problems in the education system and its regulations.

Second, education policy has not determined essential terms, such as vocational education, polytechnic, and applied sciences education. The milestone of the development polytechnic shows that the transformation of vocational education from stage to stage has not been based on a sustainable policy⁹⁷. This finding shows that the policy-oriented approach has not been well employed in developing vocational education regulation.⁹⁸ The laws regulating vocational education have not been sustainable accordingly. Thus, the definition of some basic terms becomes somewhat elastic. The insight from the second finding: the role of basic terms in the ground policy to positive laws is essential.

Third, the development of vocational education and polytechnic in education laws is only based on the point of view of each regime. This finding reveals that the configurative method in policy-oriented approach has not been duly implemented.⁹⁹ The scope of vocational education in education policy has been changed from time to time. This scope has affected the legal status of polytechnic. The milestone of polytechnic development shows that the legal status of this institution has been changed three times. The development of polytechnic has become unsustainable accordingly. The insight from the third finding: the education policy takes a pivot role in formulating the education development and its regulations. A firm policy will create sustainable development.

Fourth, without a clear direction, the role of law in polytechnic development has created some problems in its implementation. The study points out that the LHE 2012

⁹⁴ The DLT emphasize the role of cultural-oriented approach. See Rasjidi & Putra, *Loc.cit.* & Northrop, *Loc.cit.*

⁹⁵ See the vocational higher education level in Germany in Thomas Eckhardt, ed., *The Education System in the Federal Republic of Germany 2016/2017* (Bonn: KMK, 2019), 28–29.

⁹⁶ *Ibid*

⁹⁷ Sustainability is one of the problems of education development in Indonesia. See Arwildayanto, Arifin Suling, and Warni Tune Sumar, *Analisis Kebijakan Pendidikan Kajian Teoritik, Eksploratif, Dan Aplikatif* (Bandung: Cendekia Press, 2018), 17–18.

⁹⁸ Kusumaatmadja, *Loc.cit.*; see also Lasswell & McDougal, *Op.cit.* pp. 486-487 & 500-501.

⁹⁹ *Ibid.*

as a development instrument has not been worked well. This finding shows that the substance of law governing vocational education has not conformed with the standard education practices.¹⁰⁰ The lawmakers, therefore, have not been concerned about the role of non-law factors.¹⁰¹ As a result, the direction of polytechnic development in this law is ambiguous. Then, the implementation at the operational level faces some obstacles. As the last insight: the non-law factors are essential to make the substance of law corresponding with the respected fields.

As a closing remark in this subchapter, the law governing education development in Indonesia lacks sustainability. In this case, it seems the expediency is more dominant than certainty. Meanwhile, the DLT strongly emphasizes that order and certainty are essential in development instead of justice and expediency.¹⁰²

4. CONCLUSION

Based on the discussion and analysis above, it can be concluded that the legal status of polytechnic in Indonesia is heavily affected by the vocational education system in the policy and law of the national education system. The various interpretations of polytechnic occurred due to the absence of ground policy that defined some basic terms in vocational education. The current policy on vocational education, therefore, has to be reset accordingly. Then the government shall draw up a new law of the national education system based on the new ground policy corresponding with standard educational practices. Finally, the new legal status of polytechnic can be determined appropriately.

Since vocational education is different from applied sciences education, there are two choices concerning the new legal status of the polytechnic. Polytechnic can be constituted as either a vocational higher education institution or an applied sciences higher education institution. Regarding the recent development of education in many countries, it will be better if polytechnic in Indonesia is granted legal status as an applied sciences higher education institution. Therefore, the new legal status of polytechnic will be equal to institute in specific ways or university of applied sciences. In other words, the ideal legal status of polytechnic will be as an academic higher education institution.

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¹⁰⁰ See Rasjidi, *Op.cit.* pp. 134-135; See also Darmodiharjo & Shidarta, *Op.cit.* pp 128-129; & Rabban, *Loc.cit.*

¹⁰¹ See Kusumaatmadja, *Loc.cit.*; Lasswell & McDougal, *Loc.cit.*

¹⁰² Kusumaatmadja (2), *Loc.cit.*

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