

## The Government's Priority Strategy on the Implementation of Sustainable Construction in the Likupang Special Economic Zone

Daisy Pangemanan<sup>1\*</sup>, Don Kabo<sup>2</sup>, Teddy Takaendengan<sup>3</sup>, Rilya Rumbayan<sup>4</sup>  
Department of Civil Engineering, Manado State Polytechnic

**Corresponding Author:** Daisy Pangemanan [daisypangemanan79@gmail.com](mailto:daisypangemanan79@gmail.com)

---

### ARTICLE INFO

*Keywords:* Government, Continuous construction, Likupang SEZ

*Received :* 3 August

*Revised :* 17 August

*Accepted:* 23 September

©2023 Pangemanan, Kabo, Takaendengan, Rumbayan: This is an open-access article distributed under the terms of the [Creative Commons Attribution 4.0 International](https://creativecommons.org/licenses/by/4.0/).



### ABSTRACT

The Indonesian government elaborates the concept of welfare by designing new areas that are created with the aim of accelerating and expanding economic development, to empower the potential of local wisdom by upholding the principles of sustainability, integration and competitiveness. The Likupang Special Economic Zone (SEZ) is one of the government's super priority projects and is the focus of supporting the development of the tourism sector in Indonesia, as stated in Government Regulation of the Republic of Indonesia Number 84 of 2019 concerning the Likupang Special Economic Zone. The government as a regulatory regulator forms a common understanding between the government and service providers, investors and the public. The purpose of this research is to formulate the government's priority strategy in implementing sustainable construction in the development of the Likupang SEZ. This research is a qualitative research using survey methods, interviews and Focus Group Discussion (FGD) using SWOT analysis and determining priority strategies using the McFarlan Grid method. This research produced ten government priority strategies which were determined based on the level of urgency of the strategy. This study concludes that 4 (four) strategies are strategic in nature, the top priority to be carried out immediately, 4 (four) strategies are key performance, that it is important to do but not urgent

## **INTRODUCTION**

In order to promote development in each region, the government elaborates the concept of welfare by designing a new area created with the aim of accelerating and expanding economic development. This is a form of regional development in order to empower the potential of local wisdom owned by an area by holding the principles of sustainability, integration and competitiveness. The main policy taken by the government was to issue Law Number 39 of 2009, concerning Special Economic Zones/SEZ. Birth of Law No. 39/2009, based on the need to accelerate the development of a region and maintain a balanced progress of a region (as a national economic unit). As one of the government's super priority projects in order to support the development of the tourism sector in Indonesia, the Likupang SEZ is the government's focus for development. This is stated in the Government Regulation of the Republic of Indonesia Number 84 of 2019 concerning the Likupang Special Economic Zone. Priority zones for SEZ development include: processing; logistics; industry; technology development; as well as tourism and energy, both for export and domestic needs.

In essence, the SEZ Regulation created by the government is to protect the business world from obtaining legal certainty in carrying out production activities, attracting investors to invest, increasing employment, and infrastructure development can run smoothly. Likupang SEZ is one of the major projects with a sustainable construction approach design, as a momentum for each stakeholder to describe green practices in development.

It needs full support from the government as a regulatory regulator to socialize sustainable construction to all stakeholder components so that a common understanding between the government and service providers, investors and the community, about sustainable construction is very important to support the implementation of sustainable construction principles (Willar and Pangemanan, 2019). In addition, Lingga and Pratomo in a study of the SEZ area of Sei Mangkei, showed that the development of SEZ must be in harmony with the development of social life and improving the economy of the surrounding community. The policy strategy that can be implemented is to oblige every business entity in the SEZ area to allocate its budget to carry out environmental development. This policy perspective must always be reflected on the country's long-term needs (Lingga and Pratomo, 2013). The government is trying to promote development in each region by elaborating the concept of socially just welfare, by designing a new area created with the aim of accelerating and expanding economic development. This is a form of regional development in order to empower the potential of local wisdom owned by an area by holding the principles of sustainability, integration and competitiveness.

Based on several literature reviews, it can be concluded that government support can be a factor that needs to be examined in implementing sustainable construction in Likupang SEZ. The form of government support by making special regulations can provide maximum benefits and positive impacts for the development of special economic zones. In principle, the role of the government is very closely related to the sustainability of a development implementation, because the government is one of the stakeholder elements that acts as a giver of

tasks for service providers, as well as the government acts as a user or users of products produced by service providers.

## LITERATURE REVIEW

Sustainable construction is a concept developed to explain the responsibility of the construction industry in realizing sustainable development (Araújo et al., 2020). The focus of the concept of sustainable construction focuses on three main pillars, namely environmental friendliness, social life, and economic prosperity (Lima et al., 2021). Sustainable construction can be understood as responsible construction and maintenance of a healthy environment built on ecological principles and efficient use of resources (Ajibike et al., 2021)

The development trend of sustainable construction tends to focus on the relationship between construction stakeholders, human development and environmental aspects. The government through the Ministry of Public Works and Public Housing (PUPR) has issued Ministerial Regulation Number 9 of 2021 concerning Guidelines for Implementing Sustainable Construction as a guideline for implementing sustainable construction, but in practice it is still constrained by the diverse contexts in society which are the subject of this sustainable construction implementation, so it is necessary to formulate a government strategy in implementing sustainable construction (Kementerian Pekerjaan Umum dan Perumahan Rakyat, 2021).

A special economic zone (SEZ) is an area that is prepared to maximize industrial, export, import and other economic activities that have high economic value. SEZ can accelerate national economic development through investment in areas that have economic and geostrategic advantages (Dewan Nasional Kawasan Ekonomi Khusus, 2021). SEZs can be useful for regional development and as a breakthrough model for regional development for economic growth, including industry, tourism and trade so as to create jobs. SEZ can be defined as an area with certain boundaries within the jurisdiction of the Unitary State of the Republic of Indonesia which is determined to carry out economic functions and obtain certain facilities Indonesia, (2015). SEZ is a certain area where special provisions apply in the fields of customs, taxation, permits, immigration and employment (Sihaloho et al., 2010). SEZ is an area that specifically focuses on export-import-oriented industries and messages on regional growth (Alkon, 2018). SEZ can also be an industrial cluster that has characteristics according to the potential in the area (Pan et al., 2016; Sosnovskikh and Sergej, 2017).

The main policy taken by the Indonesian government was to issue Law Number 39 of 2009, concerning Special Economic Zones/SEZ . Birth of Law No. 39/2009, based on the need to accelerate the development of a region and maintain a balanced progress of a region (as a national economic unit).

As one of the government's super priority projects in order to support the development of the tourism sector in Indonesia, the Likupang SEZ is the government's focus for development. This is stated in the Government Regulation of the Republic of Indonesia Number 84 of 2019 concerning the Likupang Special Economic Zone. Priority zones for SEZ development include:

processing; logistics; industry; technology development; as well as tourism and energy, both for export and domestic needs. According to Fauzi (2013). SEZ is held to be a stimulus to:

- a. Increase in Gross Domestic Product and Gross Regional Domestic Product (GRDP);
- b. Foreign exchange savings;
- c. Addition of employment;
- d. Additional tax revenue.

Meanwhile, according to Alkadri (2011), the factors that are the key to successful SEZ development are government support to develop: industry, infrastructure, institutions, human resources, promotion strategies, and outreach activities.

## METHODOLOGY

This research begins by identifying the problems that occur covering the scope of the government's role in achieving the sustainable development of the Likupang SEZ. Problems are obtained by conducting initial observations and the results of literature studies and review of regulations/policies. After the problem has been defined, the research is continued by conducting interviews with stakeholders. Interview techniques using semi-structured interview techniques to obtain research data. The data were analyzed using SWOT analysis and then a priority strategy was formulated using the McFarland Grid method (Ward, Peppard, 2002). Focus Group Discussions (FGD) are carried out by inviting elements of construction project stakeholders to confirm and verify the strategic formulation that has been designed. After that, a final conclusion is drawn. Can be seen in Figure 1.

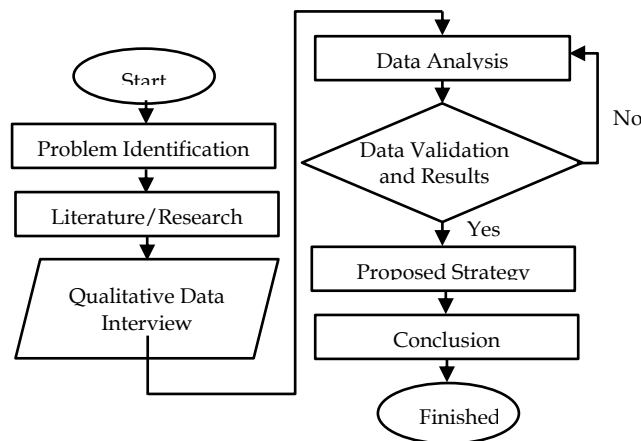


Figure 1. Research Flow Chart

Methods of direct observation and interviews, which involve respondents from service providers, namely contractors and consultants who have handled sustainable construction project work, the government (North Sulawesi Province, District Government, and local Government), Investors, Academics, and communities in the environment Likupang SEZ development. The results of data collection were then analyzed using SWOT analysis, by grouping data including the strengths, weaknesses, opportunities and challenges of the

government in carrying out sustainable construction in the development of the Likupang SEZ. From the results of the SWOT analysis, strategic steps must be taken by the government to support the implementation of sustainable construction in the Likupang SEZ. After that, the quadrants are mapped with the weighting of each strategy to see how strong the strategies that have been made are. Furthermore, the level of urgency of implementing the strategy is determined using the McFarland Grid method. The strategy formulation is discussed further in the FGD as well as to verify the strategy that has been designed.

In this study, focusing on the development of the Likupang SEZ which is designed with a sustainable construction approach starting from the government support factor as a stakeholder element that synergizes with the owner of the Likupang SEZ, namely PT. MPRD in carrying out development with a sustainable construction approach.

## **RESEARCH RESULT AND DISCUSSION**

Likupang SEZ is the focus of the government in order to support the development of the tourism sector in Indonesia. This is stated in the Government Regulation of the Republic of Indonesia Number 84 of 2019 concerning the Likupang Special Economic Zone. Priority zones for SEZ development include: processing; logistics; industry; technology development; as well as tourism and energy, both for export and domestic needs. According to Fauzi (2013). SEZ is held to be a stimulus to: (1) increase in Gross Domestic Product and Gross Regional Domestic Product (GRDP); (2) foreign exchange savings; (3) increase in employment opportunities; (4) additional tax revenue. Meanwhile, according to Alkadri (2011) regarding the Banten SEZ, the factor that is the key to successful SEZ development is the government's support for developing: industry, infrastructure, institutions, human resources, promotion strategies, and outreach activities. Therefore, government support factors are formed including:

Table 1. Dimensions of Government Support Factors

No	Dimensions	Objective
1.	Regulation	This dimension aims to find out how effective regulations regarding sustainable construction are applied to the Likupang SEZ development planning
2.	Level of understanding of stakeholders	This dimension aims to determine the extent of the response and level of understanding of the SEZ development project stakeholders towards the government in implementing SEZ development with a sustainable construction approach.
3.	Bureaucracy	This dimension is to find out how far the bureaucratic flow made by the government in the context of SEZ development which is carried out using a sustainable construction approach
4.	Socialization	This dimension is to find out how far the government's socialization efforts are in order to promote sustainable construction practices among service providers in particular and the community in general.

Based on the description in Table 1, the instruments used for interviewing respondents were compiled in order to obtain information and data. The results obtained at the interview stage were then grouped based on the SWOT analysis table. Next, an analysis of the strategy for implementing sustainable construction was prepared on government factors in the Likupang SEZ. Strategy analysis uses the SWOT method and Priority analysis uses the McFarlan Grid method. SWOT analysis on government factors can be seen in Table 2.

Table 2. Government Support SWOT Analysis

	STRENGTH	WEAKNESS
SWOT	<ol style="list-style-type: none"> <li>1. The government has stipulated regulations governing guidelines for the implementation of sustainable construction through ministerial decree no. 9 years 2021</li> <li>2. The government strongly supports the development of the Likupang SEZ sustainable construction project by designating it as a national super priority object</li> <li>3. The government provides support for access to easy and fast administration</li> </ol>	<ol style="list-style-type: none"> <li>1. Not all of the stakeholders understand projects with a sustainable construction approach well so that their implementation is still not entirely good</li> <li>2. The government has not maximized socialization to all stakeholders so that not all stakeholders understand the principles of sustainable construction</li> </ol>

<p><b>OPPORTUNITY</b></p> <ol style="list-style-type: none"> <li>1. Open opportunities for good Government to government cooperation with various other countries so as to boost the economy and investment</li> <li>2. Opportunities to hold international scale events in the tourism sector at the Likupang SEZ location</li> <li>3. Likupang SEZ has the opportunity to become a role model project for a sustainable construction approach</li> </ol>	<ol style="list-style-type: none"> <li>1. Evaluation of the implementation of PUPR regulation no. 9 years 2021 in the field</li> <li>2. Fast and simple application of bureaucracy with 1 door services and acceleration programs for super priority SEZ projects</li> <li>3. Publication and promotion in the international world through various international communication channels on a multinational or bilateral basis.</li> <li>4. Organizing SEZ development projects according to sustainable principles standards, by building the synergy of all stakeholder elements.</li> </ol>	<ol style="list-style-type: none"> <li>1. Regular training and outreach about projects with a sustainable construction approach to all stakeholders</li> <li>2. Collaborating with various campuses in the SEZ area to conduct outreach, seminars and workshops for stakeholders</li> </ol>
<p><b>THREAT</b></p> <ol style="list-style-type: none"> <li>1. Political factors in government, security and economic instability that have caused the SEZ development project to stop</li> <li>2. Changes in national and regional leadership have led to changes in development priorities</li> </ol>	<ol style="list-style-type: none"> <li>1. Strengthen the political system and maintain stability to ensure the continuity of the Likupang SEZ project</li> <li>2. Development of a long-term sustainable construction master plan and ensuring its sustainability in the future</li> </ol>	<ol style="list-style-type: none"> <li>1. Dissemination and literacy on sustainable construction by involving academics, community leaders and the media</li> <li>2. Conducting studies on sustainable construction in the Likupang SEZ area</li> </ol>

Researchers began by determining the important factors of internal conditions in sustainable construction in the Likupang SEZ, then classifying strengths and weaknesses. The weight column is the level of importance of each factor, the weighting of 0.2 is very important, 0.1 is important, 0.05 is quite important, 0.01 is not important and if added together it will be worth 1.00. While the rating is the value of the internal condition of each organization. Score 4 for very good condition, score 3 for good condition, score 2 for average condition, and score 1 for bad condition. The factors are scored 3 and 4 only for the strengths group, while the scores are 2 and 1 for the weaknesses group. If all values are added up, it can be seen the value of the SWOT results from the strategy. See Table 3

Table 3. Calculation of the Determination of the Government Strategy SWOT Quadrant

FAKTOR SWOT	BOBOT	SKOR	TOTAL (BOBOT x RATING)
<b>STRENGTHS (S)</b>			
1. The government has established guidelines for implementing sustainable construction through Permen no. 9 of 2021	0,2	4	0,8
2. The government strongly supports the development of the Likupang SEZ sustainable construction project by designating it as a national super priority object	0,2	4	0,8
3. The government has provided support for access to easy and fast administration	0,2	3	0,6
<b>TOTAL</b>	<b>0,6</b>		<b>2,2</b>
<b>WEAKNESS (W)</b>			
1. Stakeholders do not all understand projects with a sustainable construction approach well so that their implementation is still not entirely good	0,2	2	0,4
2. The government has not properly disseminated information to all stakeholders so that not all stakeholders understand sustainable construction	0,2	2	0,4
<b>TOTAL</b>	<b>0,4</b>		<b>0,8</b>
<b>OPPORTUNITY (O)</b>			
1. The opening of opportunities for good Government to government cooperation with various other countries so as to increase the economy and investment	0,2	4	0,8
2. The opening of opportunities for good Government to government cooperation with various other countries so as to increase the economy and investment	0,2	3	0,6
3. Likupang SEZ has the opportunity to become a role model project for a sustainable construction approach	0,2	4	0,8
<b>TOTAL</b>	<b>0,6</b>		<b>2,2</b>
<b>THREAT (T)</b>			
1. Political factors in government, security and economic instability that have caused the SEZ development project to stop	0,2	2	0,4
2. Changes in national and regional leadership have caused changes in national development priorities	0,2	2	0,4
<b>TOTAL</b>	<b>0,4</b>		<b>0,8</b>

From the calculation results, the following analysis results are obtained:

The total score of the strengths factor = 2.2

Weakness factor total score = 0.8

So that the determination of coordinates for internal factors is used by the formula:

IFAS internal coordinates (internal factor strategy) = Total score of strengths factors - Total score of weakness factors

$$\text{IFAS} = 2.2 - 0.8 = 1.4$$

Thus, the internal factor coordinates are 1.4. Then an analysis is carried out to obtain external coordinates, as follows:

Opportunity factor total score = 2.2

Threats factor total score = 0.8

EFAS external coordinates (external factor strategy) = Total opportunity factor score - Threat factor total score

$$\text{EFAS} = 2.2 - 0.8 = 1.4$$

Thus, the external factor coordinates are 1.4. Furthermore, the determination of the quadrants can be seen in Figure 2.

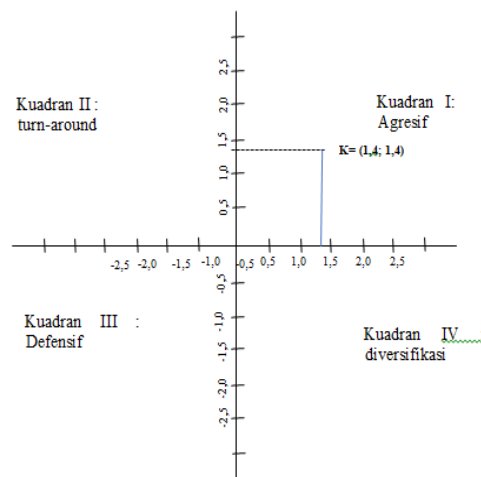


Figure 2. Determination of the Government Support SWOT Analysis Quadrant

Thus, it can be said that the resulting strategy priority is in quadrant I, so the resulting strategy is an aggressive strategy. This means that the strategy for implementing sustainable construction has an internal aspect that can be utilized to seize and maximize the identified opportunities, so as to increase effectiveness on government factors and this sustainable construction can be accepted and implemented properly in the Likupang SEZ.

To be able to sequence strategies on real government factors that can be implemented, researchers use the McFarlan Grid method Ward and Peppard (Alkadri, 2011). With this method, researchers derive d strategies based on strategic value (S), Key performance (K), High potential (H), and Support (U). details can be seen in Table 4.

Table 4. Priority Strategy Analysis on Government Factors

No	STRATEGI	PRIORITAS
1	Evaluation of the implementation of PUPR regulation No. 9 years 2021 in the field	S
2	Fast and simple application of bureaucracy with 1 door services and programs	K
3	Publication and promotion in the international world through various channels of international communication on a multinational or bilateral basis.	S
4	Organizing SEZ development projects according to sustainable principles standards, by building synergy of all stakeholder elements.	S
5	Regular training and outreach about projects with a sustainable construction approach to all stakeholders	H
6	Collaborating with various campuses in the SEZ area to conduct outreach, seminars and workshops for stakeholders	K
7	Strengthen the political system and maintain stability to ensure the sustainability of the Likupang SEZ project	U
8	Long-term sustainable construction master plan design that guarantees its sustainability in the future	S
9	Dissemination and literacy on sustainable construction by involving academics, community leaders and the media	K
10	Conducting in-depth studies on sustainable construction development in the Likupang SEZ area	K

This study concludes that the form of government support for the implementation of sustainable construction in the development of the Likupang SEZ can be carried out by implementing 10 (ten) strategic steps, with details of 4 (four) strategic strategies, top priority to be carried out immediately, 4 (four) key performance strategies, that it is important to do but not urgent yet. 1 (one) strategy is high potential, it is important to do but can still be postponed to be implemented, and there is 1 (one) strategy is support, meaning it is not too important but very helpful if done

## CONCLUSIONS AND RECOMMENDATIONS

This study concludes that the form of government support for the implementation of sustainable construction in the development of the Likupang SEZ can be carried out by implementing 10 (ten) strategic steps, with details of 4 (four) strategic strategies, top priority to be carried out immediately, 4 (four) key performance strategies, that it is important to do but not urgent yet. 1 (one) strategy is high potential, it is important to do but can still be postponed to be implemented, and there is 1 (one) strategy is support, meaning it is not too important but very helpful if done.

## FURTHER STUDY

This research still has limitations, so it is necessary to conduct research related to the topic of The Government's Priority Strategy on the Implementation of Sustainable Construction in the Likupang Special Economic Zone to perfect this research and add insight for readers.

## ACKNOWLEDGMENT

Thank you to the Director of Manado State Polytechnic, Head of Research Center, Head of Department and all parties who have assisted with this research, more specifically to the research team who have given their best dedication.

## REFERENCES

- Ajibike W., A , Adeleke A. Q., F. Mohamad, J. A. Bamgbade, M. N. M. Naw, and T. D. Moshood, "An evaluation of environmental sustainability performance via attitudes, social responsibility, and culture: A mediated analysis," *Environ. Challenges*, vol. 4, no. March, p. 100161, 2021, doi: 10.1016/j.envc.2021.100161.
- Alkadri. (2011). Kebijakan Pengembangan Kawasan Ekonomi Khusus (KEK) di Provinsi Banten. *Jurnal Sains dan Teknologi Indonesia*. Jakarta: Badan Pengkajian dan Penerapan Teknologi, Volume 13, Nomor 1, April 2011. (7-13)
- Araújo A. G, Pereira Carneiro A. M, and R. P. Palha, "Sustainable construction management: A systematic review of the literature with meta-analysis," *J. Clean. Prod.*, vol. 256, p. 120350, 2020, doi: 10.1016/j.jclepro.2020.120350
- Dewan Nasional Kawasan Ekonomi Khusus. 2021. "Laporan Perkembangan Kawasan Ekonomi Khusus Tahun 2021."
- Fauzi, S. (2013). Kesiapan dan Implementasi Industri Perikanan di KEK Bitung (Disampaikan pada acara FGD Pengembangan Pengolahan TTC Berbasis Pasar, 16 September 2013). Manado (Sulawesi Utara): Direktorat Jenderal Pengolahan dan Pemasaran Hasil Perikanan-Kementerian Kelautan dan Perikanan Indonesia, Kementerian Koordinator Bidang Perekonomian Republik Indonesia. 2015. "Pedoman Evaluasi Usulan Pembentukan Kawasan Ekonomi Khusus."
- Kementerian Pekerjaan Umum dan Perumahan Rakyat, (2021), Peraturan Menteri Pekerjaan Umum dan Perumahan Rakyat No. 9/PRT/M/2021 Tentang Pedoman Umum Implementasi Konstruksi Berkelanjutan pada penyelenggaraan Infrastruktur Bidang Pekerjaan Umum dan Perumahan.
- Lima, Luanda, Emanuely Trindade, Luciana Alencar, Marcelo Alencar, and Luna Silva. 2021. "Sustainability in the Construction Industri: A Systematic Review of the Literature." *Journal of Cleaner Production* 289: 125730. <https://doi.org/10.1016/j.jclepro.2020.125730>.

- Lingga, D. dan W.A. Pratomo (2013). Persepsi Masyarakat terhadap Pengembangan Kawasan Ekonomi Khusus Sei Mangkei sebagai Klaster Industri. *Jurnal Ekonomi dan Keuangan*. Medan: Universitas Sumatera Utara, Volume 1, Nomor 2, Januari 2013. (13-20)
- Pan, Wei Hwa, and Xuan Thang Ngo. 2016. "Endogenous Growth Theory and Regional Performance: The Moderating Effects of Special Economic Zones." *Communist and Post-Communist Studies* 49 (2): 113–22. <https://doi.org/10.1016/j.postcomstud.2016.04.005>.
- Peraturan Pemerintah Republik Indonesia Nomor 84 tahun 2019 tentang Kawasan Ekonomi Khusus Likupang.
- Sihaloho, Tumpal, and Naufa Muna. 2010. "Kajian Dampak Ekonomi Pembentukan Kawasan Ekonomi Khusus." *Litbang Perdagangan* 4 (1): 75–101.
- Sosnovskikh, Sergey. 2017. "Industrial Clusters in Russia: The Development of Special Economic Zones and Industrial Parks." *Russian Journal of Economics* 3 (2): 174–99. <https://doi.org/10.1016/j.ruje.2017.06.004>.
- Undang-Undang Nomor 39 Tahun 2009, tentang Kawasan Ekonomi Khusus. Lembaran Negara Republik Indonesia Tahun 2007 Nomor 67. Tambahan Lembaran Negara Republik Indonesia Nomor 5066
- Ward, John. and Joe Peppard. *Strategic Planning for Information System* 3rd ed. England: John Wiley & Sons, 2002
- Willar, D., and Pangemanan, D. (2019) Reviewing Government Initiatives On Implementing Sustainable Infrastructure Construction. Conference paper in ISEC-10 Chicago USA 20-25 May 2019