ISSN 1829-8907

Social and Environmental Risks Integration into Underwriting of Non-Life Insurance: A Review of Sustainable Finance in Indonesia

Maria Agnes ¹, Raldi Hendro Koestoer ¹², and Ahyahudin Sodri ¹

¹ School of Environmental Science, Universitas Indonesia, Indonesia; e-mail: <u>maria.agnes@ui.ac.id</u>

² Coordinating Ministry for Economic Affairs, Indonesia

ABSTRACT

Regulation of the Financial Services Authority of Indonesia (POJK) Number 51/POJK.03/2017 concerning the Implementation of Sustainable Finance for Financial Services Institutions, Issuers, and Public Companies was officially enacted for the insurance sector as of 1 January 2020 and requires the insurance sector, including the general insurance sector, to carry out the implementation of sustainable finance into its business activities. This study intends to review the extent of the implementation that has been carried out, particularly in relation to the social and environmental risk management principles. Using a literature review, data specifically related to the underwriting process were gathered and analyzed. Results of this study suggested that even though 86% of 44 respondents from the previous research had already confirmed if principles of social and environmental risk management had been implemented at that time, vast majority of the non-life insurers in Indonesia had not yet executed the said integration into the underwriting process. The sustainable finance implemented by Indonesia's non-life insurance sector is still significantly focused on short-term financial performance rather than the long-term one.

Keywords: social and environmental risk management, sustainable finance, general insurance, social responsibility, underwriting process

ABSTRAK

Peraturan Otoritas Jasa Keuangan (POJK) Nomor 51/POJK.03/2017 tentang Penerapan Keuangan Berkelanjutan Bagi Lembaga Jasa Keuangan, Emiten, dan Perusahaan Publik resmi diberlakukan bagi sektor perasuransian per tanggal 1 Januari 2020. Pemberlakuan POJK tersebut mewajibkan sektor perasuransian, termasuk sektor perasuransian umum, untuk merealisasikan penerapan keuangan berkelanjutan dalam kegiatan usahanya. Oleh karena itu, studi ini bermaksud untuk melakukan tinjauan terhadap kinerja keuangan berkelanjutan yang dilaksanakan oleh sektor perasuransian umum sehubungan dengan prinsip pengelolaan risiko sosial dan lingkungan hidup. Metode tinjauan literatur pada studi ini dilakukan dengan pengumpulan data sekunder dan analisis kinerja keuangan berkelanjutan yang secara spesifik berkaitan dengan proses *underwriting*. Adapun dari hasil ulasan dapat disimpulkan bahwa walaupun 86% perwakilan penerapan prinsip pengelolaan risiko sosial dan lingkungan hidup, namun proses integrasi aspek tanggung jawab sosial serta perlindungan dan pengelolaan lingkungan belum mencakup sampai kepada tahapan proses *underwriting*. Penerapan keuangan berkelanjutan dari sektor perasuransian umum di Indonesia masih berfokus pada kinerja keuangan jangka pendek.

Kata kunci: pengelolaan risiko sosial dan lingkungan, keuangan berkelanjutan, asuransi umum, tanggung jawab sosial, proses underwriting.

Citation: Agnes, M., Koestoer, R. H., dan Sodri, A. (2023). Social and Environmental Risks Integration into Underwriting of Non-Life Insurance: A Review of Sustainable Finance in Indonesia. Jurnal Ilmu Lingkungan. 21(1), 125-131. doi: 10.14710/jil.21.1.125-131

1. Introduction

The financial services industry is a vital element for the real economy, since it supports economic well-being which will further improve social outcomes (United Nations Environment Programme Finance Initiative Principles for Sustainable Insurance, 2012; Weber, 2014; Yang et al., 2022). In relation to its function as an intermediary, lender, money manager, or risk evaluator, the financial services industry has a strategic role in influencing behaviors of other economic sectors, including imposing sustainability principles (Helleiner, 2011; Scholtens, 2011; Dziawgo, 2014; Dixon, 2019; Chiaramonte et al., 2020; Dong et al., 2021). Having acknowledged this strategic role and the fact that its activities still generated high volume of indirect emissions, the insurance sector as part of the financial services industry is actively supporting the implementation process of the sustainable finance (Junnila, 2006; Mills, 2012; Shrake, 2012; Johannsdottir, 2014; Jones & Phillips, 2016).

The role of the insurance sector is to create economic stability through risk management, namely by spreading and reducing individual risks so that economic activities will still be able to take place even after the occurrence of an event that caused a financial loss (Zelenika & Lotrič, 2008; Samuelson & Nordhaus, 2010; Chang et al., 2013). Therefore, with no intention to disregard other aspects, sustainable finance implementation in the risk management aspect is very fundamental for the insurance sector (Wiek & Weber, 2014; Pawlak et al., 2018; Sherwood & Pollard, 2018; Imanche et al., 2021; Ziolo et al., 2021).

The regulation issued by the Authority of Financial Services (OJK), POJK No. 51/POJK.03/2017 on Sustainable Finance Implementation for Financial Institutions, Issuers, and Public Companies, defines sustainable finance as comprehensive support from the financial services sector in creating sustainable economic growth by aligning economic, social and environmental aspects (SAL POJK 51 - Keuangan Berkelanjutan). Furthermore, Article 2 of the regulation also stated that the sustainable finance implementation referred is required to be carried out using several principles, including the principles of social and environmental risks management which further describes as the integration of social responsibility as well as environmental protection and preservation aspects into risk management in order to avoid, prevent, and minimize negative impacts arising from risk exposures related to those aforementioned aspects (SAL Penjelasan POJK 51 -Keuangan Berkelanjutan). Therefore, given the fact that underwriting process is one of the insurance core activities in which risk management is undertaken, the social responsibility and the environmental protection and preservation aspects should also be integrated into the underwriting process.

A previous study conducted to representatives from 44 non-life insurers in Indonesia showed that 86% of them had applied the principles of social and environmental risk management into their sustainable finance implementation processes (Maftuchah, 2018). However, mindful that the previous study had not yet reviewed the scope of the principles of social and environmental risks management referred by the respondents, thus this study aims to explore into it.

2. Literature Review

Risk is a combination of hazard and exposure. In general, risk can be defined as the consequences, either positive or negative, that may occur as a result of an event or activity (Zou et al., 2007). Whilst in insurance business, the term risk is defined as probability of a loss or an outcome which is adversely deviated from the expectation (Vaughan & Vaughan, 2014). Underwriting is the process of evaluating, defining, classifying, and pricing insurance risks. It is an essential element in the operation of any insurance program since risk management is being exercised within the process. In the underwriting process, risks are managed based on the statistical data of the previously accepted risks, particularly in relation to the type of risks and losses. Although the result of this process determines the acceptance or rejection of a risk, the underwriting process is not intended to only accept the risks that will not have losses. The purpose of the underwriting process is to secure a proportionate combination between the good and undesirable risks by exercising risk management (Vaughan & Vaughan, 2014).

In accordance with POJK No. 51/POJK.03/2017, specifically Article 2 Point 2.c., the sustainable finance implementation on risk management carried out in the underwriting process should no longer be based solely on economic aspects but must already be integrated with social responsibility as well as the environmental protection and preservation aspects. Some experts suggested that aside from creating advantage in the form of regulatory compliance, this integration would also provide additional benefits such as greater support for the integration process of those aspects into company's other operational activities (Nogueira et al., 2018), and positive impacts to its financial result and reputation (OECD, 2001; Engert et al., 2016; Negri, 2018; Nogueira et al., 2018).

One of the guidelines that can be used for the process of integrating social and environmental aspects into underwriting is the working paper issued by UNEP FI PSI in 2019. The document presents a list of potential risks for each Environmental, Social and Governance (ESG) aspect, accompanied by heat maps of those risks to economic sectors and insurance lines of business. The heat maps are guidance tools to get an indication about the levels of potential ESG risks across economic sectors and lines of business. As stated in the guideline, the list of risks for environmental aspects is categorized into climate change, environmental degradation, protected sites/species, unsustainable practices, and animal welfare/testing. Human rights and controversial weapons are the categories for social aspects. Whilst bribery & corruption, poor corporate governance, and poor product safety & quality are the categories for governance aspects.

To indicate the levels of the potential risks in the heat maps, red color is given to those economic sectors and lines of business that have high or direct risks, while orange is for elevated risks and yellow is for low risks. The levels of those risks stated in the UNEP FI PSI guideline are identified and assessed based on numerous international standards, such as the Greenhouse Gas Protocol for climate change, the Roundtable on Sustainable Palm Oil (RSPO) for environmental degradation, UNESCO World Heritage List for protected sites, IUCN Red List of Threatened

126

Agnes, M., Koestoer, R. H., dan Sodri, A. (2023). Social and Environmental Risks Integration into Underwriting of Non-Life Insurance: A Review of Sustainable Finance in Indonesia. Jurnal Ilmu Lingkungan. 21(1), 125-131. doi: 10.14710/jil.21.1.125-131

Species for protected species, Illegal, Unreported and Unregulated (IUU) Fishing Lists for unsustainable practices, Royal Society for the Prevention of Cruelty to Animals (RSPCA) for animal welfare/testing, UN Declaration of Human Rights for human rights, UN conventions on various weaponry for controversial weapons, as well as UN Global Compact Principles for governance aspects (United Nations Environment Programme Finance Initiative Principles for Sustainable Insurance, 2019).

3. Research Method

POJK Number 51/POJK.03/2017 Article 12 Point 2 requires financial services institutions, including non-life insurers, to publish sustainability reports on their companies' websites. For this reason, the literature review in this study was carried out by collecting secondary data in the form of published sustainability reports from each of non-life insurance company's website. The data obtained were then analyzed to figure out the scope of the sustainable finance implementation that was conducted during the year of 2020 and 2021.

The population in this study is 71 conventional non-life insurers in Indonesia, which are further categorized into 4 groups based on the types of ownership and total assets as shown in Table 1.

 Table 1. Category of Companies Based on Types of

 Ownership and Total Assets

Category of Companies	Numbers
National with total assets > 2 trillion rupiahs	13
National with total assets < 2 trillion rupiahs	41
Joint Venture with total assets > 2 trillion rupiahs	7
Joint Venture with total assets < 2 trillion rupiahs	10
Total	71

Source: 0JK (2021)

4. Result and Discussion

According to POJK Number 51/POJK.03/2017, financial services institutions, including non-life insurers, have the obligation to plan, submit, and publish their performance on the implementation process of sustainable finance. Article 12 Point 2 of the said POJK also stipulates the deadline for the publication, which is by April 30th of the following year at the latest. This implies that all non-life insurers in Indonesia should have already completed

the publication of the Sustainability Report 2020 by no later than 30th April 2021 and no later than 30th April 2022 for Sustainability Report 2021. Nevertheless, as shown in Table 2, result of the review identified that currently only some of the nonlife insurers that had made such publications. As a matter of fact, when the initial review was undertaken at end of the year 2021, only 33 out of 71 non-life insurers had made the publication for 2020 Sustainability Reports. In that case, 3 publications had just been added within the year 2022.

The result of a further review conducted to the contents of those publications, which were summarized in Table 3 and Table 4, revealed that the vast majority of Indonesia non-life insurers mentioned Corporate Social Responsibility (CSR) programs, eco-friendly business operations, product development, digitalization, and green investment as part of their sustainable finance implementation strategies, with Corporate Social Responsibility (CSR) programs and eco-friendly business operations as the top 2 most popular strategies.

Only 1 non-life insurer mentioned about the integration of social and environmental aspects into underwriting as part of its sustainable finance implementation strategies. Sadly, this strategy was just mentioned once in Sustainability Report 2020 but no longer can be found in Sustainability Report 2021.

This suggested that although 86% of 44 respondents from the previous research had already confirmed if principles of social and environmental risk management had been implemented at that time (Maftuchah, 2018), but the integration of social responsibility and environmental protection and preservation aspects into risk management had not yet been implemented within the underwriting process. Most insurers are still focused on strategies correlated with short-term financial performance, namely savings on paper, water, electricity, and fuel consumption.

Concurrently, this condition demonstrated if the implementation of the social and environmental risk management principles is still very limited and had missed being executed within the core business activities.

Table 2. Sustainability Reports Publication

Category of Companies	2020	2021
National non-life insurers with total assets > 2 trillion rupiahs	7	5
National non-life insurers with total assets < 2 trillion rupiahs	17	18
Joint Venture non-life insurers with total assets > 2 trillion rupiahs	7	7
Joint Venture non-life insurers with total assets < 2 trillion rupiahs	5	5
Total	36	35

Source: Authors (2022)

Jurnal Ilmu Lingkungan (2023), 21 (1): 125-131, ISSN 1829-8907



Figure 1 Distribution for the 2020 Sustainability Reports Publication (Authors, 2022)



Figure 2 Distribution for the 2021 Sustainability Reports Publication (Authors, 2022)

		Table 3. Outlin	e of Sustainabil	ity Reports 2020)	
Type of Strategy	Underwriting	Product Development	CSR	Eco-friendly business operations	Green investment	Digitalization
National non-	life insurers with	total assets > 2 tr	illion rupiahs			
1		Х	Х			
2			х	Х		
3			х	х		
4			х	Х		
5			х	Х		
6			х	х		
7			х		Х	Х
National non-	life insurers with	total assets < 2 tr	illion rupiahs			
1				х		
2		х	х	Х	х	
3		х	х	Х	х	
4			х	х		
5				х		Х
6		Х	х	х		
7			х	Х		
8		х	х	х		
9			х	Х		
10		х	х	х		Х

Table 3. Outlin	e of Sustainability	⁷ Reports	2020

Agnes, M., Koestoer, R. H., dan Sodri, A. (2023). Social and Environmental Risks Integration into Underwriting of Non-Life Insurance: A Review of Sustainable Finance in Indonesia. Jurnal Ilmu Lingkungan. 21(1), 125-131. doi: 10.14710/jil.21.1.125-131

			Х		Х
		х	Х		
	Х		Х		
		Х	Х		
			Х		х
		Х	х	х	
		Х	х		
insurers v	vith total assets >	2 trillion rupiah	S		
Х	х	Х	Х	Х	Х
		Х	х		Х
		Х	х		Х
		Х	х		
	х	Х	х		
		Х			Х
		Х	х		
insurers v	vith total assets <	< 2 trillion rupiah	S		
	х	Х	Х		
		Х			
		Х	Х		
	х	Х	Х		х
			Х		
1	11	30	32	5	10
	x insurers v	x x x x x x x x x x x x x x x x x x x	x x x x	xx	xxx

Source: Authors (2022)

Table 4. Outline of Sustainability Reports 2021

Type of Strategy	Underwriting	Product Development	CSR	Eco-friendly business operations	Green investment	Digitalization
National non-	life insurers with	total assets > 2 tr	illion rupiahs			
1		х	x			
2			on sustainable fi	nance implementa	tion strategies	
3			Х	x	0	
4			Х	х		
5			X	x	х	х
National non-	life insurers with	total assets < 2 tr				
1		X	x	х		х
2		X	X	X	х	A
3		X	X	X	А	
4		X	X	X		
5		A	X	X		x
6			X	X		Λ
7		v	x	x		v
		X	X			Х
8				X		
-				X		
10			Х	X		
11		Х	Х			
12			Х	X		
13			Х	Х		
14			Х	Х		
15			Х	Х		
16			Х	Х	х	
17		Х	Х	Х	х	
18			Х	Х		
Joint Venture	non-life insurers	with total assets >	2 trillion rupiah	S		
1			Х	Х		
2			Х	Х	х	
3			Х			
4			Х			
5			Х	Х		
6			х	х		х
7			Х	Х	х	х
Joint Venture	non-life insurers	with total assets <	< 2 trillion rupiah	S	•	•
1			x	Х		
2			Х	Х		х
3		х	х	х		х
4	1	X	X		х	
5		X		х		
		11	31	29	7	8

Source: Authors (2022)

5. Conclusion

Corresponding to the results of the study and the discussions in the previous section, hence it can be concluded as follows: First, the sustainable finance implementation executed by Indonesia's non-life insurance sector is still significantly focused on the short-term financial performance; Second, the sustainable finance implementation executed by Indonesia non-life insurance sector will tend to have a greater impact if such implementation is able to be executed up to the stages of the underwriting process.

Following on from the above conclusions, recommendations to be presented are: First, Indonesia's non-life insurance sector needs to integrate social responsibility as well as the environmental protection and preservation aspects into the underwriting process rather than focusing on short-term financial performance; Second, for the process of integrating those social and environmental aspects into underwriting, a non-life insurance company can refer to UNEP FI PSI guideline that can be downloaded from UNEP FI PSI website. Even so, to be able to transform this guideline into one company's internal underwriting guideline, an initial alignment with the company's targets, vision and mission is still required.

REFERENCES

Chang, T., Cheng, S. C., Pan, G., & Wu, T. pao. (2013). Does globalization affect the insurance markets? Bootstrap panel Granger causality test. Economic Modelling, 33, 254–260.

https://doi.org/10.1016/j.econmod.2013.04.008

- Chiaramonte, L., Dreassi, A., Paltrinieri, A., & Piserà, S. (2020). Sustainability practices and stability in the insurance industry. Sustainability (Switzerland), 12(14). https://doi.org/10.3390/su12145530
- Dixon, F. (2019). Sustainable Finance. Cadmus, 4(1), 47-64.
- Dong, S., Xu, L., McIver, R. (2021). China's financial sector sustainability and "green finance" disclosures. Sustainability Accounting, Management and Policy Journal Vol. 12 No. 2, pp. 353-384. http://dx.doi.org/10.1108/SAMPJ-10-2018-0273
- Dziawgo, L. (2014). Greening financial market. Copernican Journal of Finance & Accounting, 3(2), 9. https://doi.org/10.12775/cjfa.2014.014
- Engert, S., Rauter, R., & Baumgartner, R. J. (2016). Exploring the integration of corporate sustainability into strategic management: a literature review. Journal of Cleaner Production, 112, 2833-2850. http://dx.doi.org/10.1016/j.jclepro.2015.08.031
- Helleiner, E. (2011). Introduction: The Greening of Global Financial Markets? Global Environmental Politics, 51-53, 11(2). https://doi.org/10.1162/GLEP_a_00053
- Imanche, S. A., Ze, T., Dalibi, S. G., Yuguda, T. K., & Kumo, H. A. (2021). The Role of Sustainable Finance in the Achievement of Sustainable Development Goals in Nigeria: A Focus on Chinese Foreign Direct Investment. IOP Conference Series: Earth and Environmental Science, 793(1). https://doi.org/10.1088/1755-1315/793/1/012030
- Johannsdottir, L. (2014). Transforming the linear insurance business model to a closed-loop insurance model: A

case study of Nordic non-life insurers. Journal of Cleaner Production, 83, 341–355. https://doi.org/10.1016/j.jclepro.2014.07.010

- Jones, A. W., & Phillips, A. (2016). Voluntary business engagement in climate change: A study of the ClimateWise principles. Journal of Cleaner Production, 137, 131–143. https://doi.org/10.1016/j.jclepro.2016.07.064
- Junnila, S. I. (2006). Empirical comparison of process and economic input-output life cycle assessment in service industries. Environmental Science and Technology, 40(22), 7070–7076. https://doi.org/10.1021/es0611902
- Maftuchah, I. (2018). Corporate ESG Profile on Performance: Evidence from Indonesian Insurance Industry.
- Mills, E. (2012). The Greening of Insurance. Science, 1424-1425, 338(6113). https://doi.org/10.1126/science.1229351
- Negri, P. (2018). Sustainable Finance and Non-Financial Disclosure: The Impact for the Insurance Industry. Symphonya. Emerging Issues in Management, 1, 110. https://doi.org/10.4468/2018.1.09negri
- Nogueira, F. G., Lucena, A. F. P., & Nogueira, R. (2018). Sustainable Insurance Assessment: Towards an Integrative Model. Geneva Papers on Risk and Insurance: Issues and Practice, 43(2), 275–299. https://doi.org/10.1057/s41288-017-0062-3
- OECD. (2001). OECD Annual Report 2001. OECD Publishing. https://doi.org/https://doi.org/10.1787/annrep-2001-en
- Pawlak, N., Czechowski, P. O., Czuba, T., Oniszczuk-Jastrząbek, A., & Badyda, A. (2018). Business insurances as an element of sustainable development of small and medium enterprises in Poland. SHS Web of Conferences, 57, 01024. https://doi.org/10.1051/shsconf/20185701024
- SAL POJK 51 Keuangan Berkelanjutan, Nomor 51/POJK.03/2017 (2017) (testimony of Otoritas Jasa Keuangan).
- SAL Penjelasan POJK 51 Keuangan Berkelanjutan, Nomor 51/POJK.03/2017 (2017) (testimony of Otoritas Jasa Keuangan).
- Samuelson, P. A., & Nordhaus, W. D. (2010). Economics Nineteenth Edition. McGraw-Hill/Irwin. www.mhhe.com
- Scholtens, B. (2011). Corporate Social Responsibility in the International Insurance Industry. Sustainable Development, 19(2), 143-156. https://doi.org/10.1002/sd.513
- Sherwood, M., & Pollard, J. (2018). The risk-adjusted return potential of integrating ESG strategies into emerging market equities. Journal of Sustainable Finance and Investment, 8(1), 26–44. https://doi.org/10.1080/20430795.2017.1331118
- Shrake, S. O. (2012). Evaluating the Environmental Performance of Service Sector Industries. University of Pittsburgh.
- United Nations Environment Programme Finance Initiative Principles for Sustainable Insurance. (2012). A global sustainability framework and initiative of the United Nations Environment Programme Finance Initiative Principles for Sustainable Insurance. https://www.unepfi.org/psi
- United Nations Environment Programme Finance Initiative Principles for Sustainable Insurance. (2019).

Agnes, M., Koestoer, R. H., dan Sodri, A. (2023). Social and Environmental Risks Integration into Underwriting of Non-Life Insurance: A Review of Sustainable Finance in Indonesia. Jurnal Ilmu Lingkungan. 21(1), 125-131. doi: 10.14710/jil.21.1.125-131

Underwriting environmental, social and governance risks in non-life insurance business.

- Vaughan, E. J., & Vaughan, T. M. (2014). Fundamentals of Risk and Insurance. John Wiley & Sons, Inc
- Weber, O. (2014). The financial sector's impact on sustainable development. In Journal of Sustainable Finance and Investment (Vol. 4, Issue 1, pp. 1–8). Taylor and Francis Ltd. https://doi.org/10.1080/20430795.2014.887345
- Wiek, A., & Weber, O. (2014). Sustainability challenges and the ambivalent role of the financial sector. Journal of Sustainable Finance and Investment, 4(1), 9–20. https://doi.org/10.1080/20430795.2014.887349
- Yang, Q., Du, Q., Razzaq, A., Shang, Y. (2022). How volatility in green financing, clean energy, and green economic practices derive sustainable performance through ESG indicators? A sectoral study of G7 countries. Resources Policy 75, 102526. https://doi.org/10.1016/j.resourpol.2021.102526
- Zelenika, R., & Lotrič, T. (2008). MANAGING THE INSURANCE RISKS – FACTORS OF PROFITABLE BUSINESS OF INSURANCE COMPANIES. Naše More, 55, 18–28.
- Ziolo, M., Bak, I., & Cheba, K. (2021). The role of sustainable finance in achieving sustainable development goals: Does it work? Technological and Economic Development of Economy, 27(1), 45–70. https://doi.org/10.3846/tede.2020.13863
- Zou, P. X. W., Zhang, G., & Wang, J. (2007). Understanding the key risks in construction projects in China. International Journal of Project Management, 25, 601–614.

https://doi.org/10.1016/j.ijproman.2007.03.001