Does the Environment Matter? Assesing Indonesia Public Service Innovation Towards Environmental Issues

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Abstract. Environmental issues in the Sustainable Developments Goals (SDGs) create complexities such as increasingly limited resources, ambitious goals, and dispersed interests. The government remains a vital determinant in efforts to overcome environmental degradation in achieving the SDGs. In the notion of public sector innovation, it is crucial to overcome environmental problems with various challenges, namely using new approaches to increasingly complex problems. Therefore, this study looks at various patterns of public service innovation related to environmental issues. This study is in the context of Indonesia, which has so far struggled to achieve the SDGs goals. The researcher then analyzed the Public Service Innovation Competition report document from 2014 to 2021, which became Indonesia's sole representation of public sector innovation data. In the end, it was found that public service innovations in Indonesia tended to be less focused on environmental issues. However, at every level of government, both Ministries and Regional Governments, innovations related to the environment have emerged. On the other hand, most institutions tend to create innovations regarding waste management, but only a few other sectors, such as energy and clean water. In the spatial domain of institutions, local governments with a rural character tend to create more innovations related to the environment than local governments with an urban character. In the spatial area of Java and Outside Java, it turns out that local governments outside Java have created more innovations related to the environment than local governments on the island of Java.

Keywords: environmental policy · environmental issues · public service innovation · sustainable development goals

1 Introduction

Environmental degradation is a old problem that must be resolved collectively. However, as the principal inhabitants, humans should be able to preserve the environment, not the other way around. The human artifact entity to come together to manage and organize together is the state through various public policies. The government bears a big responsibility for public policies that can reduce the risk of environmental damage or even have entirely solved the problem. Governments in global regimes have agreed and struggled

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to resolve environmental issues through the Millennium Development Goals (MDGs) and continued with the Sustainable Development Goals (SDGs), both of which require policy coherence which is not easy to achieve [1]. Various studies also show that public administration leads to sustainable public administration in which the environment is an important determinant [2].

When placed in the SDG's framework, environmental problems have created complexities, such as the reality of limited resources and ambitious achievement goals for various dispersed interests [3]. Various countries that have agreed to achieve the SDGs have also experienced dilemmas and trilemmas in their environmental policies [4, 5]. Both developed and developing countries are experiencing the increasingly complex implementation of environmental policies that old approaches cannot solve; we all need new approaches to solving public problems through innovation.

Public sector innovation and the environment have a strong relationship. This relationship is shown by the premise that innovation exists because of human needs. At the same time, environmental degradation is a mandatory requirement in this era to be immediately fulfilled and problems resolved. The government's hard work can be seen in its efforts to solve various public problems in conventional and non-conventional ways [6]. Classical and modern problems get much more attention using non-conventional methods through innovation. Including a higher chance of successful problem solving because innovation is considered capable of penetrating excessive bureaucratization gaps, specifically in the context of SDGs, shows that achieving SDGs requires inter-sectoral and multi-stakeholder innovation [7, 8].

This study looks at the pattern of public service innovations in Indonesia related to environmental issues such as public service innovations that preserve nature, energy conservation, waste management, and so on. Thus, it can be seen the extent to which public service innovations are related to the environment and its distribution in various government institutions and their spatial aspects. However, Indonesia does experience various problems in implementing the SDG's achievements; even in 2021, Indonesia will only reach 82 out of 193 countries [9], so it is crucial to see the extent of the role of government innovation in various levels to increase its impact. In addition, the study of public service innovation in Indonesia shows various patterns of innovation, such as inequality of innovation from spatial and organizational aspects to various progress and challenges so far [10, 11]. Specifically, the pattern of innovation can be seen from studies on the inclusiveness of innovation but has yet to emerge about other specific aspects, so further studies are needed in more specific topic [12].

2 Method

This study applies content analysis to analyze the public service innovation competition report (KIPP) document by the Ministry of Administrative and Bureaucratic Reform (Kemenpan-RB). The data is downloaded directly from the Kemenpan-RB website with the results of the Top 99 public service innovations from 2014, 2015, 2016, 2017, 2018, 2019, 2020, and 2021. In addition, the report ranks the 99 Best Public Service Innovations in one year [13–20].

In the context of the competition, Kemenpan-RB is the only institution that conducts competitions and evaluates public service innovations in Indonesia. However, in

determining the ranking of Public Service Innovations, Kemenpan-RB still refers to the results of the assessor team consisting of academics and public sector practitioners whose independence is guaranteed.

Researchers use content analysis because it can provide an overview of the pattern of a phenomenon based on particular texts or documents [21]. The content analysis procedure is carried out by: They are first coding a protocol to analyze the content of the annual report, namely creating keywords that are in the domain of environmental issues, such as "Environment," "Green," "Sustainable," "Energy," "Waste," and "Garbage". Second, run the coding of the protocol on the report every year. Third, tabulate the coding of the protocol. Fourth, re-checking the application of the coding protocol alternately with other researchers to avoid data tabulation errors and show data consistency. Fifth, interpret the results of the tabulation. After the tabulation results appeared to see which innovation programs could be classified as innovations related to the environment, the researchers re-classified the data based on several categories, namely: First, classification based on the type of government institution. Second, the classification is based on the spatial aspects of urban and rural areas. Third, the classification is based on the spatial aspects of the island of Java and outside the island of Java. Fourth, classification is based on the field of environmental linkage with innovation. An example of an analysis of these four classifications can be seen in Table 1 as an example of document analysis results in 2014.

3 Results and Discussion

The analysis results show that there are always public service innovations supporting the reduction of environmental damage from 2014 to 2014. Figure 1 shows the development of the number of innovations starting from 2014 with three innovations, 2015 with eight innovations, 2016 and 2017 each with 11 innovations, in 2018, 2019, and 2020 with six innovations each, and finally in 2021 with seven innovations. Therefore, the total innovations that emerged were 58 innovations from 2014 to 2021. Thus, compared with the total number of innovations per year, 99 innovations, the trend of innovation related to environmental issues is an average of 7.25 innovations per year or about 7%. The data shows that environmental issues tend to be optional in creating innovation by all levels of government. In various cases, it takes work to create innovations related to environmental issues. Public sector innovations to support sustainable development goals face various obstacles such as innovation capacity, human resources, finance, communication, and governance [22].

A more detailed analysis can be shown from the development of the number of public service innovations related to the environment through the levels of government, namely the Ministry, Provincial Government, Municipal, and Regency Governments in Indonesia. Figure 2 shows that from 2014 to 2021, there will be different trends between these institutions. Each year, each level of government is almost all capable of creating innovations related to environmental issues. The Ministry had to be absent in 2015 and 2016, the Provincial Government was absent in 2015 and 2016, and the Municipal Government was absent in 2018 and 2019. It is precisely the Regency Government that continues to maintain consistency and create innovations related to environmental issues.

Table 1. Analysis of KIPP 2014

No.	Year	Innovation	Level of Government	Urban/Rural	Java Island/Outside	Sector
1.	2014	*Taman Terapi dan Toilet Kebun sebagai De-Stress Corner* (Therapeutic Garden and Garden Toilet as De-Stress Corner)	Ministry of Health	Urban	Java	Enviromental Health
2.	2014	*Pelayan Pendidikan Bermutu dengan Program Penampilan dan Prestasi Sekolah (P2S) Melalui Pendekatan Sekolah Ramah Lingkungan, Ramah Sosial, dan Berbudaya Mutu* (Quality Education Servants with a School Appearance and Achievement Program (P2S) Through an Environmentally Friendly, Socially Friendly, and Quality Cultured School Approach)	Padang Pariaman Regency	Rural	Java	Education
3.	2014	*Gerakan Masyarakat Mencintai Lingkungan (Gemilang) wilayah kerja Puskesmas* (Community Movement to Love the Environment (Gemilang) in the work area of the Puskesmas)	Banyuwangi Regency	Rural	Java	Enviromental Health

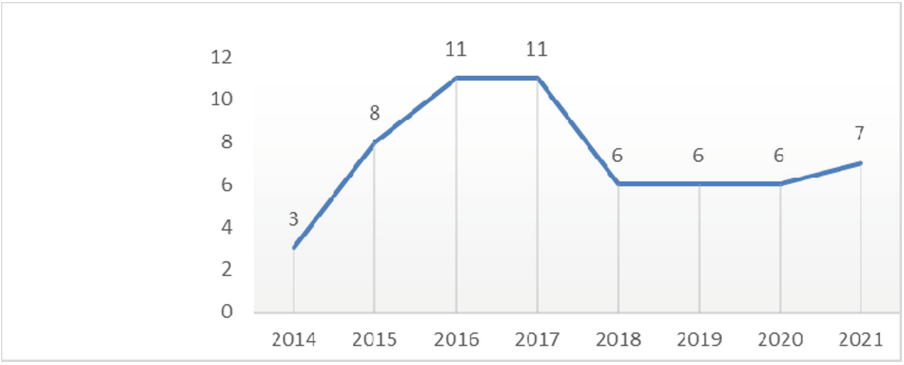

Fig. 1. The Number of Public Service Innovations related to the Environment in 2014–2021

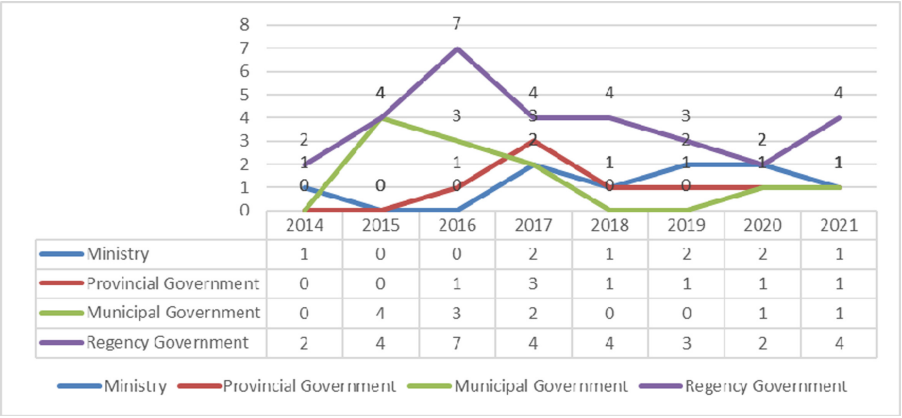

Fig. 2. The Number of Public Service Innovations related to the Environment in 2014–2021 based on Government Level

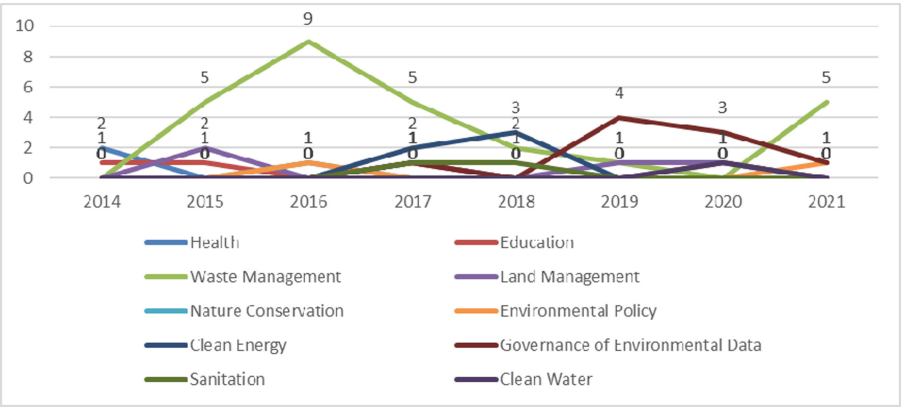

Fig. 3. The Number of Public Service Innovation Sector related to the Environment in 2014–2021

The data shows that all levels of government are capable of creating innovations related to environmental issues. However, more effort is a must to spread these innovations across institutions at various levels. This effort is essential because there is a tendency for the public to be disappointed with the government's efforts to deal with environmental conservation [23]. Ultimately, this disappointment will reduce trust in the government, thus clouding the joint efforts to improve the environment.

Further analysis reveals different public service innovation areas related to environmental issues. For example, Fig. 3 shows ten areas that are the domain of environmental issues, namely: 1) Health, 2) Land management, 3) Clean energy, 4) Clean water, 5) Education, 6) Nature conservation, and 7) Governance of Environmental data, 8) Waste management, 9) Environmental policy, and 10) Sanitation.

These environmental sectors have become the focus of public service innovation from 2014 to 2021, but various trends have emerged in each field that can show trends

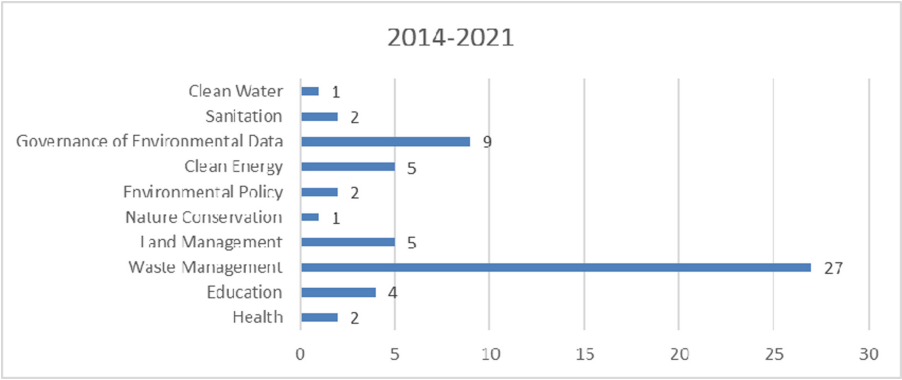

Fig. 4. Total Number of Public Service Innovation Sector related to Environment 2014–2021

so far. Waste management became the area of innovation with themost number of 27 innovations, followed by environmental data management with nine innovations, clean energy and land management with five innovations each, followed by sanitation, environmental policy, and environmental health with two each. Innovation, then finally clean water and nature conservation with two innovations each.

The data can show that the problem of waste is a concern of the government in reducing environmental damage amid the lack of structural policies on waste management. However, various other public service innovations are still being treated to overcome environmental problems because the numbers are minimal but very important, such as clean energy and clean water (Fig. 4).

Data analysis in urban and rural spatial domains shows different tendencies. For example, Fig. 5 shows that the Regency Government, which represents the rural character, is more actively dominating in creating public service innovations related to environmental issues than the Municipal Government, which represents the urban character. The Regency Government shows 30 innovations, while the Municipal Government has 11.

The data shows that at the government level with a rural character, they tend to have more concern for the relationship between public service innovations and environmental issues than other levels of government. This finding is slightly different from the analysis of Muluk & Pratama [11], which shows that even though there are fewer urban areas than rural areas, local government areas with an urban character dominate public service innovation.

On the other hand, other findings also emerged that at the local government level, both provincial, municipal and regency governments, if classified Java Island spatially and Outside Java, it shows that local governments outside Java tend to produce more innovations related to the environment than local governments in Java. Java Island. Local governments outside Java Island were able to create 30 innovations, while inside Java Island were 19 innovations from 2014 to 2021. This data can break the argument that local governments on Java Island are superior in innovation to local governments outside Java. Previous research has shown that local governments in Java are more active

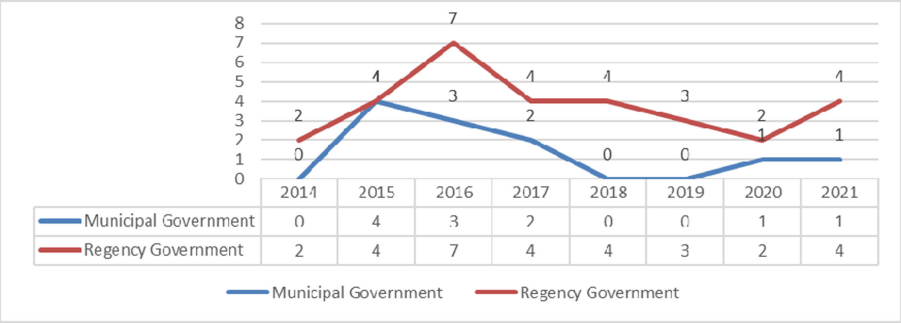

Fig. 5. The Number of Public Service Innovations related to the Environment in 2014–2021 based on Urban and Rural Government

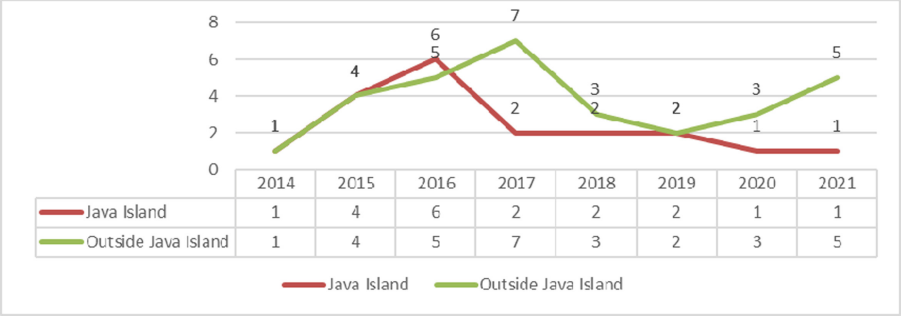

Fig. 6. The Number of Public Service Innovations related to the Environment in 2014–2021 based on the Domain of Java Island and Outside Java

in creating innovations than local governments outside Java, especially in educational innovation and innovation with an inclusive character [10, 12] (Fig. 6).

4 Conclusion

Environmental issues are optional in creating public service innovations by all levels of government. However, all levels of government are capable of creating innovations related to environmental problems. Therefore, there should be a need for policy coherence in the SDGs with the competition for public service innovation in Indonesia to encourage more public service innovations that are genuinely related to the environment.

In public service innovation related to the environment, the waste management problem is becoming the government's attention in reducing environmental damage amid the lack of structural policies on waste management. However, other public service innovations are still needed to overcome environmental problems because the numbers are minimal but very important, such as clean energy and clean water.

Regarding the distribution at the local government level, it shows that the local government with a rural character tends to have more concern for the relationship between public service innovations and environmental issues than other levels of government.

This tendency is different from the previous pattern in that there is a tendency that in public service innovation, in general, government capacity with an urban character is considered better by creating more innovations. In addition, the pattern shows that local governments in the spatial domain outside Java tend to generate more innovations related to the environment than in the Java Island domain. This tendency also shows a different distribution pattern because, generally, the government in Java Island is considered to have a greater innovation capacity and the number of innovations.

References

1. Eileen de Jong, Marjanneke J. Vijge. (2021). From Millennium to Sustainable Development Goals: Evolving discourses and their reflection in policy coherence for development, Earth System Governance, Volume 7,2021, 100087, ISSN 2589–8116, https://doi.org/10.1016/j.esg.2020.100087.
2. Gedeon M. Mudacumura, Desta Mebratu & M. Shamsul Haque. 2006. Sustainable Development Policy and Administration. CRC Press
3. Magdalena Bexell, Kristina Jönsson. (2022) Realizing the 2030 Agenda for sustainable development – engaging national parliaments?. Policy Studies 43:4, pages 621–639.
4. Magdalena Bexell & Kristina Jönsson (2019) Country Reporting on the Sustainable Development Goals—The Politics of Performance Review at the GlobalNational Nexus, Journal of Human Development and Capabilities, 20:4, 403–417, https://doi.org/10.1080/19452829.2018.1544544
5. Anastasiia Gotgelf. (2022) Information governance for sustainable development: Exploring social dilemmas in data provision for international reporting on Land Degradation Neutrality. Environmental Science & Policy 135, pages 128–136.
6. Nafila Dwi Mutiarani & Dodik Siswantoro | (2020) The impact of local government characteristics on the accomplishment of Sustainable Development Goals (SDGs), Cogent Business & Management, 7:1, 1847751, https://doi.org/10.1080/23311975.2020.1847751
7. Enayat A. Moallemi, Shirin Malekpour, Michalis Hadjikakou, Rob Raven, Katrina Szetey, Dianty Ningrum, Ahmad Dhiaulhaq, Brett A. Bryan. (2020). Achieving the Sustainable Development Goals Requires Transdisciplinary Innovation at the Local Scale, One Earth, Volume 3, Issue 3, 2020, Pages 300–313, ISSN 2590–3322, https://doi.org/10.1016/j.oneear.2020.08.006.
8. König, J., Suwala, L. and Delargy, C. (2020). Helix Models of Innovation and Sustainable Development Goals. In: Leal Filho, W., Azul, A., Brandli, L., Lange Salvia, A. and Wall T. (eds) Industry, Innovation and Infrastructure. Encyclopedia of the UN Sustainable Development Goals. Springer, Cham. https://doi.org/10.1007/978-3-319-71059-4_91-1
9. Jeffrey D. Sachs, Christian Kroll, Guillaume Lafortune, Grayson Fuller, and Finn Woelm. 2021. Sustainable Development Report 2021: The Decade of Action for the Sustainable Development Goals. Cambridge University Press.
10. A.B. Pratama, "The Landscape of Public Service Innovation in Indonesia," Innov Manag Rev., vol. 17, no. (1), pp. 25–40, 2019.
11. M.R.K Muluk & M.R. Pratama. 2021. Public Sector Innovation in A Developing Country: Progress and Challenges in the Competition for Public Service Innovation in Indonesia. Public Policy and Administration. Vol. 20 (4).
12. M.R.K Muluk, M.R. Pratama, & A.H. Muzaqi. 2020. The Landscape of Inclusive Public Service Innovation in Indonesia Local Government. Proceedings of the 3rd Annual International Conference on Public and Business Administration (AICoBPA 2020).

13. Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi. 2014. Laporan Top 99 Inovasi Publik tahun 2014. Kemenpan-RB: Jakarta.
14. Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi. 2014. Laporan Top 99 Inovasi Publik tahun 2015. Kemenpan-RB: Jakarta.
15. Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi. 2014. Laporan Top 99 Inovasi Publik tahun 2016. Kemenpan-RB: Jakarta.
16. Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi. 2014. Laporan Top 99 Inovasi Publik tahun 2017. Kemenpan-RB: Jakarta.
17. Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi. 2014. Laporan Top 99 Inovasi Publik tahun 2018. Kemenpan-RB: Jakarta.
18. Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi. 2014. Laporan Top 99 Inovasi Publik tahun 2019. Kemenpan-RB: Jakarta.
19. Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi. 2014. Laporan Top 99 Inovasi Publik tahun 2020. Kemenpan-RB: Jakarta.
20. Kementerian Pendayagunaan Aparatur Negara dan Reformasi Birokrasi. 2014. Laporan Top 99 Inovasi Publik tahun 2021. Kemenpan-RB: Jakarta.
21. K. Krippendorf. 2004. Content Analysis: An Introduction To Its Methodology. London: Sage Publication.
22. Katarzyna Kozioł-Nadolna, Karolina Beyer. 2021. Barriers to innovative activity in the sustainable development of public sector organizations, Procedia Computer Science, Volume 192, 2021, Pages 4376–4385, ISSN 1877–0509, https://doi.org/10.1016/j.procs.2021.09.214.
23. Edelenbos, J., & van Meekerk, I. (2011). Institutional evolution within local democracy-local self-governance meets local government. In Interactive policymaking, metagovernance and democracy (pp. 169–186). ECPR Press. https://core.ac.uk/download/pdf/19915735.pdf