Integrating policy strategy documents: SDGs and KLHS/SEA, into the Regional Medium-Term Development Plan/RPJMD as a foundation for sustainable regional development

Junjung Sahala Tua Manik[1*], *Hartuti* Purnaweni[1], *Irma* Damayanti[2] and *Titik* Djumiarti[1]

[1] Department of Public Administration Diponegoro University, Semarang
[2] Dinas Lingkungan Hidup dan Kehutanan Provinsi Jawa Tengah, Semarang

Abstract. Various environmental damage in Central Java—from natural disasters and climate change to overexploitation of resources—are worsened by unsustainable development planning. This often stems from limited understanding and human resources, making mitigation through planning essential. This study examines how Sustainable Development Goals (SDGs) and Strategic Environmental Assessment (SEA) are integrated into the Regional Medium-Term Development Plan (RPJMD) to prevent indirect environmental harm and evaluate regional development. The research reviews regulations, policy documents, and environmental SDG achievements using a qualitative approach and descriptive document analysis. Many SDG targets remain unmet due to low prioritisation in RPJMD or exclusion of programs led by non-government actors. SDGs are still viewed as the responsibility of a single institution, reflecting weak stakeholder commitment. Integration of SDGs and KLHS into RPJMD is crucial, as these are technocratic documents developed at global, national, and regional levels. Effective integration requires strong leadership commitment to align SDG goals with RPJMD's vision and mission. When done correctly, this can significantly mitigate environmental degradation and foster sustainable regional development.

Keywords: SDGs, *KLHS, RPJMD*, Sustainable Development, Environmental Policy.

1 Introduction

In recent decades, the massive pace of development in various parts of Indonesia, including the Central Java Province, has left an ecological footprint that cannot be ignored. Development pressure on the environment is increasing and is characterised by massive land conversion, water and air pollution, decreased biodiversity quality, and repeated ecological disasters such as floods, landslides, and droughts. Coastal cities in Central Java are vulnerable

* Corresponding author: junjungstmanik@live.undip.ac.id

to flooding and land subsidence owing to natural and anthropogenic factors, such as groundwater withdrawal and land development [1], [2]. These disasters are exacerbated by poor drainage systems and inadequate solid-waste management [2]. In addition, massive land cover changes, especially in agricultural land and plantations that turned into settlements and road infrastructure, resulted in a deficit in environmental capacity from 2010 to 2020, signalling that the consumption of natural resources in the northern coastal region of Central Java has exceeded the regenerative capacity of the ecosystem [3]. Local communities are trying to fill in soil to raise houses and infrastructure to cope with sea level rise and frequent flooding, but this is an expensive and temporary solution [4].

In riverine areas, the carrying capacity of residential and agricultural land in the Garang watershed in Semarang has also been exceeded, leading to increased flood risk, decreased water quality, and degradation of upstream ecological functions [5]. This is exacerbated by a lack of integration between development policies and strategic environmental assessments, leading to many spatial and regional development plans that do not consider ecological capacity. Meanwhile, the shift from paddy fields to barren land has caused an increase in air temperature and decreased water vapour pressure, especially in areas initially dominated by agricultural land and forests [6]. These changes hurt the local climate and agricultural productivity. In Pati district, Margoyoso sub-district, local industries' disposal of cassava flour wastewater has caused environmental pollution due to low ecological awareness among entrepreneurs. This pollution contributes to the degradation of regional water and soil quality [7]. The industrial sector in Central Java still tends to be slow to adopt climate change mitigation strategies, despite the potential benefits of programs such as the Low Emission Development Strategy [8]. This unpreparedness exacerbates the environmental impact of industrial activities.

There is a delicate balance between agricultural development and biodiversity conservation in the Dieng Mountains. Although vegetable crops provide economic benefits, they also contribute to agrarian pollution, in contrast to agroforestry systems that support ecosystem services [9]. Many development policies in Central Java, including mining and industrial licenses, are issued without going through an adequate Strategic Environmental Assessment (SEA) process, resulting in social conflicts and systemic environmental damage, such as what happened in the Kendeng mountain area and the mining area in Pemalang [10]. The interactions between humans and nature determine the direction of environmental management. Human nature, which always seeks to fulfil its needs quickly and maximally, often encourages exploiting natural resources that exceed the environment's carrying capacity [11]. The imbalance between human activities and natural capacity has led to various ecological impacts, such as land degradation, pollution, and the climate crisis, which increasingly threaten the sustainability of living systems. Exploration of natural resources is triggered by economic needs, development policies, and programs that are prepared without considering sustainability principles. When the planning process does not integrate the carrying capacity and the environment's capacity, the damage that occurs is systemic and difficult to control. Much environmental damage stems from strategic decisions without considering long-term ecological implications [12].

These environmental problems indicate an imbalance between development dynamics and the region's ecological capacity, ultimately threatening the environment's carrying capacity. This problem is more complex because most development policies and programs at the regional level are still prepared sectorally, without systemically integrating sustainable principles. As a global technocratic document that should be a reference in the preparation of development planning, the SDGs are often considered only as an activity of certain agencies.

Therefore, it is necessary to integrate SDGs as a global technocratic document, SEA as an evaluative and anticipatory instrument for ecological risks, and RPJMD as a political

product document for implementing development policies in these regions. Integrating the three becomes very important as a collective effort to strengthen environmental governance, avoid policy fragmentation, and ensure that the development has a positive economic impact and can maintain and restore ecological quality. Environmental degradation can be used to integrate the SDGs and KLHS in RPJMD. This study seeks to show the linkages between documents to form an interconnected framework and realise environmental sustainability at the regional level.

2 Method

To understand the linkages between SDGs, SEA, and RPJMD, this study used a descriptive qualitative approach with a document analysis method. This approach was chosen because the three instruments are policy and planning documents that contain strategic information on the direction of development at the regional level. Through document studies, researchers can examine substance, structure, and interdocument linkages without collecting primary data in the field. Therefore, researchers must carefully select relevant and reliable documents. Strategies for selecting documents include considering the document's origin, purpose, and context [13].

Document study or document analysis is a qualitative research method involving a systematic document review and evaluation. This approach has several advantages: (1) Resource Efficiency: It allows researchers to conduct research without the need for extensive fieldwork, which can be resource-intensive, and (2) Ethical Considerations: Document analysis can mitigate some of the ethical concerns associated with other qualitative methods, such as participant privacy and consent issues [13]. (3) Data Richness: Documents can provide rich and contextualised data that may not be accessible through other methods [14]. To assist researchers in expressing the study results, researchers sampled data on SDGs achievements in Central Java Province in a particular year.

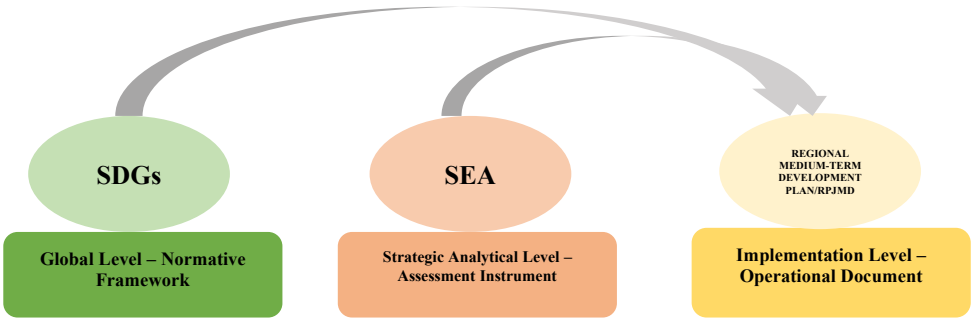
3 Results and Discussion

The Sustainable Development Goals (SDGs) were officially adopted by the United Nations in 2015 in the 2030 Agenda to respond to increasingly complex global challenges, including poverty, inequality, and especially the increasingly alarming environmental damage [15]. Although sustainability has emerged since the 1972 Stockholm Conference and was reinforced through the 1987 Brundtland Commission report, environmental degradation continues to worsen owing to uncontrolled exploitation of natural resources, climate change, biodiversity loss, and ecosystem degradation. The SDGs exist not just as a normative declaration but as a global framework for action that seeks to strengthen the commitment of all countries, including at the local level, to balance economic development and environmental conservation.

This conference marked an important milestone in environmental awareness and became the foundation for future sustainable development initiatives. The Sustainable Development Goals (SDGs) are 17 global goals formulated by the United Nations in 2015 as part of the 2030 Agenda. This initiative is designed to address global challenges, such as poverty, inequality, the climate crisis, and environmental degradation, to realise a more just, prosperous, and sustainable life for all humanity by 2030.

Effective implementation of SDGs requires strategies and actions tailored to local conditions. Countries are encouraged to develop SDG indicator systems to monitor progress and adapt their policies to local contexts. This localised approach ensures that development plans are relevant and effective for addressing specific environmental challenges. Sustainable

development is expected to be not just policy rhetoric but a tiered system built from global understanding to local practice. In simple terms, it can be interpreted that SDGs provide direction, SEA assesses and filters impacts, and RPJMD realises this in the form of measurable activities. SDGs, as technocratic documents prepared at the global level, and SEA, as technocratic documents prepared at the national and regional levels, become references in preparing RPJMD. The three should not stand alone as a reference for sustainable development, not just about the environment, but all aspects. Without this integration, regional development risks fail, mainly to preserve the environment and ecology for future generations.



Source: Processed by researchers, 2025

Fig. 1. Overview of the Integration of SDGs, SEA in the Regional Medium-Term Development Plan

If in the 2005-2025 period the integration of SDGs, KLHS, and RPJMD could not be carried out optimally, especially because SDGs were technically only stipulated in 2022, then in the 2025-2045 planning year, the integration of SDGs, KLHS, and RPJMD should be carried out optimally, because it has been regulated through the following policies:

3.1 Developing RAD SDGs (Perpres 111/2022)

The SDGs were officially declared in 2016, accommodated in the RPJMN in 2017-2020, and then integrated into the regional development planning system (RPJMD and KLHS) after Perpres 111 of 2022. Ideally, RAD SDGs should first be prepared to accommodate them in the RPJMD to ensure policy integration. However, the process is still challenging for these regions, especially since the Perpres SDGs have only been issued in the last three years.

Presidential Regulation 111 of 2022 on the Implementation of Achieving the SDGs regulates the implementation mechanism of the SDGs in Indonesia. This regulation requires regions to prepare an SDGs Regional Action Plan as a strategic document that serves as a guide for SDGs implementation at the regional level. Given its position as a global technocratic document, the SDGs should be implemented in the RPJMD.

Ideally, the achievement of the SDGs is part of the national strategy for achieving sustainable development, as stipulated in Presidential Regulation 111 of 2022, which stipulates that the national SDGs targets for 2024 are prepared concerning the 2030 SDGs and national targets in the 2020-2024 RPJMN. In a regional context, local governments must prepare an SDGs regional action plan, which must be a reference when preparing the RPJMD. The RPJMD, as a regional five-year planning document, must accommodate the SDGs so that regional development remains in line with national policies and does not conflict with

the ecological principles. SDGs are global technocratic documents that create a more just, prosperous, and sustainable world for everyone.

Technically, the integration of SDGs in development planning documents can be accomplished through several steps, such as mainstreaming SDGs in RPJMD, aligning RPJMD programs with SDGs, and KLHS, as well as involving stakeholders, such as NGOs, Community Organisations, and Universities, in the preparation of RAD SDGs. This needs to be done because, as a global technocratic document, the SDGs indicators are very comprehensive, so the prepared RPJMD must accommodate the programs and activities of non-governmental institutions, especially those related to achieving the SDGs. If this integration can be done, the regional development planning document, in addition to developing the vision, mission, and regional needs, will also carry out the goals and targets of the SDGs.

3.2 Preparing KLHS RPJMD (Permendagri 86/2017 and Permendagri 7/2018)

Local governments are responsible for ensuring that development is based on economic and social aspects and considers environmental sustainability and ecosystem balance. The practice of development planning in Indonesia, which refers to Permendagri 86 of 2017 and Permendagri 7 of 2018, suggests that SEA must be prepared first before RPJMD because SEA functions as an initial analysis instrument to ensure that sustainable principles have become the basis for regional development planning. Permendagri 7/2018 defines SEA as a systematic, comprehensive, and participatory study to assess the impact of development policies, plans, and programs on the environment. SEA must be prepared before RPJMD, so that RPJMD can accommodate sustainable recommendations resulting from SEA. Permendagri 86/2017 states that the RPJMD is a regional development planning document that must consider the results of SEA, so that development policies do not conflict with the carrying capacity and capacity of the environment. Procedurally, SEA is prepared first to identify strategic environmental issues and provide sustainable policy recommendations. The RPJMD is then prepared based on the SEA results, so that regional development policies have considered ecological aspects from the start.

Permendagri 7/2018 regulates the implementation of KLHS RPJMD related to SDGs, carrying capacity, and regional issues, which must be used as an instrument for Sustainable Development so that it can be implemented in regional planning. The implementation stages consist of:

3.3.1 Formation of SEA drafting team (kick off)

Determined by a decree of the Regional Head, coordinated by the Regional Secretariat and the regional apparatus in charge of regional development planning, and with the regional apparatus carrying out environmental affairs tasks.

3.3.2 Assessment of SDGs achievements (Public Test 1)

Achievement of SDGs Goals (Perpres 111/2022), Environmental Conditions of SEA Content (PP 46/2016), Government Contributions, CSOs, Philanthropy, Business Actors, Academics, and Related Parties.

3.3.3 Formulation of SDGs scenarios with RPJMD (Public Test 2)

The SDGs scenario is formulated based on the projected achievement of SDGs indicators until the end of the RPJMD period and the SDGs achievement period in 2030.

3.3.4 Quality Assurance, documentation, and validation (Duties of the Regional Head)

RPJMD SEA master report, Executive Summary, stages of the SEA development process, the Regional Head conducts quality assurance independently, and the Regional Head signs the results.

3.4 Preparation of RPJMD (Permendagri 86/2017)

Permendagri 86/2017 on Procedures for Planning, Controlling, and Evaluating Regional Development, as well as the mechanism for evaluating draft Regional Regulations related to RPJMD, aims to ensure that regional development planning is carried out systematically, measurably, and in line with national policies. The Regional Government is obliged to prepare the RPJMD by considering the principles of sustainability, environmental carrying capacity, and the socio-economic welfare of the community.

The preparation of the RPJMD is part of the regional development planning system. This document serves as a reference for the Regional Government to formulate a development direction that is structured, sustainable, and aligned with the National vision and local needs. However, so that development does not threaten ecological balance, SEA, as required by Permendagri 7/2018, must be prepared in advance as a sustainable analysis tool that assesses the impact of policies on the carrying capacity and capacity of the environment. In principle, SEA is vital in the preparation of planning documents.

- In the RPJPD, SEA must ensure that the long-term development vision has considered ecological aspects, including climate change mitigation, biodiversity protection, and natural resource sustainability. KLHS RPJPD is a strategic foundation for determining policies that are not only economic, but also encourage environmental and social balance. Without SEA in the RPJPD, long-term development risks cause uncontrolled exploitation of resources and increase the potential for ecological crises.
- In the RPJMD, SEA assesses each program and activity so that they do not conflict with the sustainable principles set out in the RPJPD. KLHS RPJMD identifies the environmental impacts of five-year development policies and incorporates sustainability recommendations into strategic sectors such as spatial planning, energy, industry, and infrastructure. SEA also ensures that the RPJMD remains aligned with the SDGs, which have become a global reference.

SEA in the RPJMD must also be harmonised with other planning documents, such as the RTRW (Regional Spatial Plan), and consider a participatory approach by involving academics, civil society, and business actors to ensure that development policies are also based on real needs in the regions. With the integration of SEA into planning documents, regional development can run more systematically, be adaptive to environmental challenges, and ensure ecological balance and community welfare in the long term.

Ideally, the position of SDGs can be seen as a document with the same function as SEA, because SDGs are technocratic documents referred to at the global level, while SEA is at the National or Regional level. So if accommodating SEA recommendations is a must, the same is true for SDGs. Because both are technocratic documents of reference to sustainable development, the development process that leaves one or both of them can certainly be legitimised as illegitimate, because it abandons the principle of sustainability in its formulation.

Central Java Province developed the RAD SDGs 2019-2023, which contains actions and activities implemented by the government and non-governmental organisations together. The existence of this document shows that Central Java Province has a strong commitment to implementing sustainable development. Furthermore, Central Java Province has also prepared various development planning documents, including KLHS, RPJPD, and RPJMD. The RPJPD of Central Java Province is stipulated by the Regional Regulation of Central Java Province 6 Year 2024, which regulates the long-term development direction for 20 years. The Central Java RPJMD 2025-2030 is in preparation and will guide regional development for the next 5 years. KLHS RPJMD has been prepared to ensure that development policies consider the carrying capacity and the environment's capacity. SEA has been prepared as part of the RPJMD to ensure regional policies integrate sustainable principles. The SEA drafting team was established through the Decree of the Governor of Central Java Number 660.1/28 of 2023 to prepare for implementing the strategic environmental assessment.

However, common obstacles that occur in the integration of SDGs, KLHS documents in RPJMD include that SDGs are still considered as documents of certain institutional activities, for example, only viewed as an activity of Bappeda; other institutions feel that they do not have an interest in achieving SDGs targets. In other aspects, some SDG programs are sometimes not included as part of planning documents because they are difficult to calculate, or occasionally only indicators are taken that can be adjusted or worked on in the RPJMD because there is an assumption that the RPJMD document is a political product containing the political vision and mission of the elected Regional Head, which is considered essential to be realized for further political interests, as well as political accountability to constituents, which ultimately has an impact on not achieving the SDGs targets, which may lead to worsening environmental quality due to neglect of several vital indicators in environmental governance. Another weakness is that the RPJMD document has not accommodated the SDGs program, especially programs implemented by non-government actors, and the last is the low commitment of cross-actors in integrating the SDGs planning process. This obstacle is evident in data sharing, program preparation, and action plan development. SDGs secretariat teams at the provincial and district/city levels often face limited access to program data due to weak cross-sector coordination.

In Central Java province, harmonising spatial data, monitoring environmental SDGs achievements, and implementing sustainable development have not been fully implemented. This finding reinforces that many environmental problems are still occurring in Central Java Province, which can be seen through the achievements of the environmental pillar of the SDGs in Central Java.

Table 1. Environmental SDGs achievements in Central Java Province

SDGs	Indicator	Indicator Goal			
		Achieved	Not Achieved	Not Implementation	NA
Clean Water & Sanitation (Goal 6)	26	15	10	0	1
Sustainable Cities & Settlements (Goal 11)	13	9	4	0	0
Responsible Consumption & Production (Goal 12)	6	3	2	0	1
Climate Action (Goal 13)	3	3	0	0	0
Life Below Water (Goal 14)	4	2	1	0	1
Life on Land (Goal 15)	4	2	2	0	0
TOTAL	56	34	19	0	3
%		60,70%	33,90%	0%	5,40%

Source: Processed by researchers, 2025

Although most indicators have been achieved, some still have not been completed or have no data. In the context of the integration of SDGs, SEA on RPJMD, the data in this table reinforces that SDGs as a global technocratic document have not become the primary reference in regional development planning documents, as stated in the previous paragraph, that SDGs are still considered as activities of specific units only, RPJMD is prepared not to accommodate non-government activities, and the low level of cross-sector coordination is a challenge in efforts to achieve SDG targets in Central Java. Of course, awareness and strengthening stakeholder commitment are needed to make SDGs a global technocratic document. SEA is a national and regional technocratic document that must be accommodated in the RPJMD.

4 Conclusion

The integration of the Sustainable Development Goals (SDGs), Strategic Environmental Assessment (KLHS), and Regional Medium-Term Development Plan (RPJMD) is an essential foundation for achieving sustainable regional development. As a global technocratic document, the SDGs should be a reference in regional development planning documents because they have rigid and detailed indicators to ensure sustainability. In addition, it is necessary to ensure that KLHS has been referred to in the preparation of RPJMD, as SDGs, KLHS is also a technocratic document on a national and regional scale that functions to ensure policies based on environmental carrying capacity. The achievement of SDGs cannot be separated from cross-sectoral synergy and complete integration into regional planning documents such as RPJMD. For this reason, it is essential to place the SDGs as a collective commitment, not just a specific sectoral or institutional program. RPJMD must be designed inclusively to accommodate contributions from various parties, including non-government actors. This effort certainly requires integrated coordination and high commitment through *program sharing* mechanisms between parties and forming a good cross-sector team to support the provision of databases and synchronisation of program activities. In this context, just like the RPJMD, ideally, the process of achieving SDG targets should be led directly by the head of the region as a form of strategic leadership that ensures policy direction remains in line with sustainable and participatory principles.

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