

STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) ON THE REVISION OF THE SPATIAL PLAN OF SORONG DISTRICT YEAR 2012-2032

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Received 2023-10-30 | **Revision** 2023-11-10 | **Accepted** 2023-12-30
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Abstract: This research aims to analyze the Strategic Environmental Assessment (SEA) in the revision of the Sorong Regency Regional Spatial Planning (RTRW) for 2012-2032. This research uses a qualitative descriptive method to achieve two objectives: (a) Provide a comprehensive analysis of the phenomenon being studied, and (b) be sensitive in collecting descriptive qualitative information while maintaining the unity of the research object, which means the data in the case study is studied thoroughly. The results of the research show that (a) In the Strategic Environmental Assessment (SEA) in the 2012-2032 Revision of the Regional Spatial Plan (RTRW) of Sorong Regency, it was identified that there were 8 KRP Spatial Structure Plans and 6 Spatial Patterns that had the potential to influence environmental conditions, based on analysis of the impact of sustainable development issues on spatial planning policies; (b) The results of the analysis regarding the influence of sustainable development issues on policies, plans and programs show that of the 9 KRPs analyzed, only 3 items require a study of SEA content, while the other 6 items do not require a study of SEA content. In addition, of the 6 Spatial Patterns in the KRP, all require a study of SEA content; and (c) The purpose of the alternative formulation is to agree on improvements to the KRP based on the results of the alternative formulation, supporting follow-up steps will be formulated as a result of the implementation of the KRP.

Keywords: KLHS, RTRW, sustainable development

INTRODUCTION

Space utilization must take into account land capacity, harmony, balance, and integration, considering the increase in space density and existing land limitations. Therefore, space management is needed to carefully consider the capacity and potential of land to ensure its use is fit to its needs and characteristics (UU No. 26 Year 2007). To improve the quality of spatial planning, it is necessary to prepare spatial planning plans that are equipped with KLHS or Strategic

Environmental Assessment (SEA). SEA functions as an instrument aimed at improving the framework think regional spatial planning, by integrating environmental aspects at the initial stage of related decision-making policy, plan, and program (KRP) (UU No. 32 Year 2009).

By the changes or revisions to the 2012-2032 Regional Spatial Planning Plan (RTRW) of Sorong Regency, there will also be changes to policies, plans, and/or programs (KRP) in the RTRW itself. As

well as the provisions on Environmental Protection and Management, every document that includes KRP elements must be based on the Strategic Environmental Assessment (KLHS)/SEA (Law Number 32 of 2009). Therefore, the review of the 2012-2032 Sorong Regency RTRW requires the preparation of KLHS as an integral part of the process, which is expected to be completed in around five months.

The government, especially regional governments, has the responsibility to prepare KLHS/SEA to improve the quality of Regional Spatial Planning (RTRW). There are many regulations concerning KLHS such as PP Republic of Indonesia No. 46 of 2016 and Minister of Environment and Forestry Regulation No. 69 of 2017 also regulates KLHS. However, views from several parties argue that the PPLH policy, along with its derivative policies, has a narrower definition of the environment than it should be (Karuniasa, 2020); (Adianti, 2020). When preparing a Strategic Environmental Study (KLHS), it is hoped that it will build a harmonious social, economic, and environmental system, creating conditions that support the SDGs. In simple terms, the basic concept of sustainability is a development that focuses on improving social, economic, and environmental aspects (Adianti, 2020); (Patrisia and Oktarianti, 2019).

The focus is not only limited to protecting and managing aspects of the physical environment. SEA needs to contain a participatory element, which implies the involvement of stakeholders and the community in the development process. In addition, SEA must reflect sustainable values by implementing elements of sustainable development, which refers to efforts to meet the needs of the current

generation without sacrificing opportunities for future generations to meet their needs and aspirations. This concept is known as sustainable development. The research aims to find out the Strategic Environment Assessment on the Revision Plan Spatial Region (RTRW) of Sorong Regency Year 2012-2032”.

LITERATURE REVIEW

The concept of space includes all areas of land, sea, air, and even space within the earth as one unit. This space is a place where humans and other creatures live, carry out activities, and maintain their survival (UU No. 26 of 2007). On the other hand, "spatial planning" refers to the spatial structure and pattern of arrangement of the space (Rohaya Putri Mokodongan, Dwight M. Rondonuwu, 2019). To achieve good, safe, comfortable, productive, and sustainable space, it is important to carry out appropriate spatial planning and land use (Panjaitan, Andri; Sudarsono, Bambang; Bashit, 2019); (Ardiansyah, Widyawati and Afriani, 2022).

The obligation to implement KLHS by the Regional Government is regulated in Law Number 32 Year 2009 Article 15. This article confirms that the Government and the Government Regions are required to implement KLHS in the preparation or evaluation of RTRW and its details at national, provincial, and district/city levels. Furthermore, KLHS must also be applied to KRP which has the potential to cause impacts and/or risks to the environment.

Thus, this shows that the role of SEA is very significant in influencing the components included in spatial planning (Sepriani, 2020). The aim of preparing KLHS Supporting the Revision of RTRW for Sorong Regency is to obtain data

regarding analysis estimation impact and risk to environment life, performance evaluation service or service ecosystem, assessment efficiency utilization SDA, level studies vulnerability and adaptation capacity, analysis of blue carbon, evaluation level of sustainability and biodiversity potential. Not only that, KLHS also has the aim of evaluating policies and plans Pattern Space, Plan Network Infrastructure, terms of use space, and regulations controlling space utilization in the results RTRW.

This evaluation was carried out by the recommendations stated in the KLHS document. It is important to integrate the SEA function and its relationship with the spatial plan, especially because the arrangement of the plan spatial is indispensable in protection efforts and management environment (Priyanta, 2018); (Sri Nuryanti, 2020).

Based on the previous explanation, to use KLHS as guide in making useful decisions in facing change and uncertainty while maintaining environmental sustainability, implementation is needed that is adapted to specific regional conditions (Wijayanto & Maryono, 2021). Many studies have analyzed SEA with various approaches to assessing its level of effectiveness due to the complexity of the process (Mulawarman et al., 2018).

KLHS is a research carried out since the policy, plan, and program (KRP) formulation stage (Genovan et al., 2022). This research provides consideration of the environmental impacts of the KRP. KLHS is implemented at the upstream level, making it possible to anticipate that there is a possibility that KRP is not suitable for SDGs principles (Wedanti, 2016). Sustainable development is strengthened by

Law Number 32 of 2009, concerning Environmental Protection and Management. This law emphasizes the importance of planning, utilizing, controlling, maintaining, and supervising the environment. One of the requirements that must be met is the creation of KLHS by the central and regional governments. The KLHS aims to ensure that the principles of sustainable development become the basis and are integrated into the development of a region in the form of KRP. KLHS/SEA is a systematic, comprehensive analysis process, and involves participation to ensure the comprehensive implementation of SDGs principles in the development of a region, policies, plans, and programs (Hutajulu, 2023).

In practice, economic aspects are often given priority over environmental and social aspects in the preparation of spatial plans. Therefore, KLHS/SEA is important to ensure that the three SDGs pillars, namely economic, environmental, and social receive balanced attention (Zulkarnain, Sukarsa, and Priyanta, 2022). SEA is a structured process to evaluate the consequences for the environment and ensure that sustainable development principles are made part of strategic decision-making (Susanti and Kurniawan, 2022).

Environmental carrying capacity refers to the ability of an ecosystem to sustain human life and other living creatures and maintain a balance between both of them. Meanwhile, environmental capacity is the ability of an ecosystem to absorb energy, substances, or other components that enter or are introduced into it (Sri Nuryanti, 2020). If the carrying capacity has exceeded its limits, it is important to improve the Development Plan Study (KRP) through

KLHS recommendations. Besides that, it is also important to integrate ecosystem services well in overall spatial and development plans (Ahmad Rifqi Makkasau, Daud Malamassam, 2021).

The preparation of SEA is intended not only to maintain and regulate aspects of the physical environment, but also to create a balance between social, economic, and environmental systems. This is related to efforts to achieve holistic and sustainable development (Istandia, 2020).

RESEARCH METHODS

This The research was conducted in Sorong Regency, Papua Barat Daya as seen in the map below, and with detailed geographical data based on the 2022 Sorong Regency Central Statistics Agency.

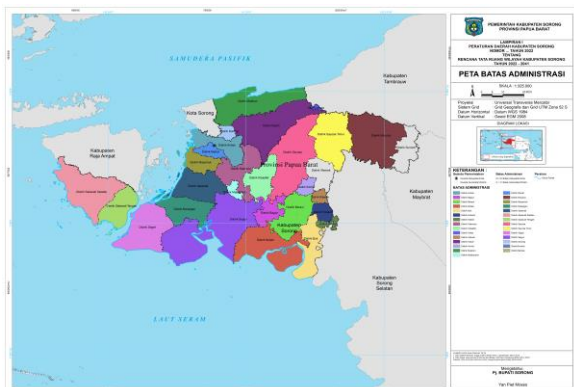


Figure 1. Map Location Study

The research used a qualitative descriptive approach by examining the environment based on the revised RTRW for Sorong Regency for 2012-2032. Interview, observation, and documentation methods were used to collect the data. Sorong Regency was chosen as the research

location because this area is experiencing unresolved urban environmental problems. Moreover, there are development dynamics, including the implementation of national strategic programs which automatically influence changes in the 2012-2032 RTRW of Sorong Regency, for example, the construction of the Sorong KEK.

RESULTS AND DISCUSSION

Analysis of the Influence of Sustainable Development Issues on the Policy Content of the Sorong Regency Spatial Planning Program Plan

Based on the cross-analysis (crosstab) that has been carried out, it was found that 8 KRP spatial structure plans influence on environmental conditions: (a) Development, improvement and maintenance of primary arterial roads; (b) Development, improvement and maintenance of primary collector roads; (c) Development of inter-city Railway Networks and Services; (d) Improvement and maintenance of special oil and gas roads; (e) Development of international seaports in the Integrated Port Industrial Area (KIPT); (f) Development and construction of feeder ports; (g) Construction of an International Airport; and (h) Network development pipe oil and gas.

Spatial Structure Plans that can have an impact on environmental conditions based on the KRP Formulation are presented in Table 1.

Table 1. Spatial Structure Plan that can have an impact on environmental conditions based on the KRP Formulation

No.	Program Plan	Location
1	Development, improvement, and maintenance of primary arterial roads	The border road section from Sorong City to the Klamono area The Klamono road to the border road Sorong Selatan Regency

No.	Program Plan	Location
		Arar Harbor Road - Sorong
		Aimas Road – Segun Airport
2	Development, improvement, and maintenance of primary collector roads	Sorong City border road section to Malawor/Makbon to Mega/Moraid and so on to Tambrauw Regency (Sausapor – Kwor – Abun/Waiben), all the way to Manokwari City
		Aimas – Seget Road Section
		The road section that connects Aimas - Sayosa
3	Development of Inter-city Railway Networks and Services	Manokwari – Sorong
4	Improvement and maintenance of special oil and gas roads	Aimas District, Mayamuk, Salawati, Seget
5	Development of an international sea port in the Integrated Port Industrial Area	KIPT, Mayamuk District
6	Development and construction of feeder ports	Kasim Harbor
		Klamono Harbor
		Seget Baru Harbor
		Sele Harbor
		Segun Harbor
		Sailolof Harbor
		Wanurian Harbor
		Klabot Harbor
		Makbon Harbor
		Mega Harbor
7	Construction of an International Airport	Segun District
8	Development of oil and gas pipeline networks	Spread across the Sorong Regency

Source: Analysis Results, 2023

There are six KRPs in the spatial pattern plan that have the potential to influence environmental conditions, namely: (a) development of oil and gas exploitation with installations in the form of enclaves in other cultivation areas; (b) development of mining exploitation with installations in the form of enclaves in other cultivation areas; (c) development of type c mining exploitation with installations in the

form of enclaves in other cultivation areas; (d) development of Integrated Port Industrial Areas; (e) development of small and medium industries in street vendors and other potential villages; and (f) development of residential areas. KRP in the Spatial Pattern Plan has the potential to influence environmental conditions life presented in Table 2.

Table 2. KRP in the Plan Pattern Spaces that have the potential to influence environmental conditions

No	Program Plan	Location
1	Development of oil and gas exploitation with installations in the form of enclaves in other cultivation areas	Western of Sorong Regency
2	Development of mining exploitation by installing enclaves in other cultivation areas	Sorong Regency
3	Development of exploitation of type C excavation mines with installations in the form of enclaves in other cultivation areas	Sorong Regency
4	Development of Integrated Port Industrial Area	Aimas, Mariat, Salawati, Moisigin, Seget Districts
5	Development of small and medium industries in street vendors and other potential villages	Sorong Regency

No	Program Plan	Location
6	Development of residential areas	Sorong Regency, especiallu Aimas Distric, Mariat, Seget, Sayosa, Mayamuk

Source: Analysis Results, 2023

From the results of the environmental impact/risk assessment, the KRP that gets the largest value will be analyzed again in the impact analysis process.

The Impact Evaluation of Priority Sustainable Development Issues by Considering KRP

Materials identified in the previous stage, which have an impact on the environment, are analyzed by considering priority SDGs issues. KRP material that is still in concept or draft form is analyzed repeatedly according to its development. The analysis stage of the influence of priority PB issues consists of the following sections: (a) value x = no impact on priority PB issues; (b) value \surd = environmental impact; (c) score range 0-3 = no SEA content study required; and (d) score range 4-8=SEA content review required this

impact analysis begins with identifying and understanding KRP elements that may have a relationship with SDGs issues.

The KRP content material has an environmental impact which is related to most of the Priority SDGs Issues which will then be studied in depth at the next stage, namely in the content study or study of the 6 (six) KLHS contents. Analysis of the Influence of Priority SDGs Issues with the Content of the Sorong Regency KRP consisting of KRP spatial structure plans and spatial pattern plans.

From the results of the analysis of 9 KRPs, only 3 items require SEA content studies and 6 items do not require SEA content studies, whereas the spatial patterns of 6 KRPs require SEA content studies. The following is an analysis of the influence of priority issues on KRP.

Table 3. Evaluation of the impact of priority Sustainable Development (PB) issues on the content of the Sorong Regency KRP

No	KRP	Development Issues					Note
		A	B	C	D	E	
A. Spatial Structure Plan							
1	Improving Inter-City Railway Networks and Services	\surd	\surd	\surd	\surd	\surd	KLHS LOAD STUDY
2	Development, improvement and maintenance of primary arterial roads	\surd	\surd	\surd	\surd	\surd	KLHS LOAD STUDY
3	Improving Inter-City Railway Networks and Services	X	\surd	\surd	X	X	ITKLHS LOAD ASSESSMENT DAK
4	Network and Service Development Inter-City train	\surd	\surd	\surd	\surd	\surd	KLHS LOAD STUDY
5	Improvement and maintenance of special oil and gas roads	X	\surd	\surd	X	X	ITKLHS LOAD ASSESSMENT DAK
6	Development of an international sea port in the Integrated Port Industrial Zone (KIPT)	\surd	X	\surd	X	\surd	ITKLHS LOAD ASSESSMENT DAK
7	Development and construction of feeder ports	X	X	\surd	X	X	ITKLHS LOAD ASSESSMENT DAK
8	Construction of an International Airport	X	\surd	\surd	X	X	ITKLHS LOAD ASSESSMENT DAK
9	Development of oil and gas pipeline networks	X	X	\surd	X	X	ITKLHS LOAD ASSESSMENT DAK

No	KRP	Development Issues					Note
		A	B	C	D	E	
B. Spatial Pattern Plan							
10	Development of oil and gas exploitation with installations in the form of enclaves in other cultivation areas	√	√	√	X	√	KLHS LOAD STUDY
11	Development of mining exploitation by installing enclaves in other cultivation areas	√	√	√	X	√	KLHS LOAD STUDY
12	Development of exploitation of type C excavation mines with installations in the form of enclaves in other cultivation areas	√	√	√	X	√	KLHS LOAD STUDY
13	Development of Integrated Port Industrial Area	√	√	√	√	√	KLHS LOAD STUDY
14	Development of small and medium industries in street vendors and other potential villages	√	√	√	√	√	KLHS LOAD STUDY
15	Development of residential areas	√	√	√	√	√	KLHS LOAD STUDY

Source: Analysis Results, 2023

Priority Sustainable Development Issues:

- A. The problem of environmental damage in upstream river basins (DAS) which has an impact on flooding
- B. Change of land use
- C. Sorong Regency is a disaster-prone area consisting of floods and flash floods, land movements, extreme weather, drought, forest and land fires, earthquakes, tsunamis, and extreme waves.
- D. There is no domestic waste management in residential areas, office areas, and health facilities (Low Sanitation Services).
- E. The existence of OAP (Indigenous Papuans) who are in HL areas and conservation areas (must be given space to live and manage natural resources).

Based on the cross-analysis results above, it was found that eight KRPs had an influence on priority issues of sustainable development, and then these KRPs would be analyzed using the 6 contents that had been determined in the KLHS. The seven

KRPs which will later be analyzed on the 6 contents of KLHS, will be given formulations for improvements and recommendations for improvements to the KRPs, which are as follows:

Table 4. KRP Formulation that Requires Study of 6 KLHS Contents

No.	KRP	Location
A. Spatial Structure Plan		
1	Improving Inter-City Railway Networks and Services	Momnokwari - Sorong
2	Development, improvement and maintenance of primary arterial roads	1. Road section from Sorong City to Klamono 2. The Klamono road section tp the boundary of Sorong Selatan Regency 3. Arar Harbor Road – Sorong 4. Aimas Road – Segun Airport Section
B. Spatial Pattern Plan		
3	Development of oil and gas exploitation with installations in the form of enclaves in other cultivation areas	Western of Sorong Regency
4	Development of mining exploitation by installing enclaves in other cultivation areas	Sorong Regency

No.	KRP	Location
5	Development of exploitation of type C excavation mines with installations in the form of enclaves in other cultivation areas	Sorong Regency
6	Development of Port Industrial Area Integrated	Aimas, Mariat, Salawati, Moisigin, Seget Districts
7	Development of small and medium industries in street vendors and other potential villages	Sorong Regency
8	Development of residential areas	Sorong Regency, especially Aimas, Mariat, Seget, Sayosa, Mayamuk Districts

Source: Analysis Results, 2023

The results of the influence analysis that require a content study will be re-analyzed with KLHS content to PP No. 46 of 2016.

Development of Improvement Options and Recommendations in Refining Policy and Program Plans (KRP)

The aim of formulating KRP alternatives is to develop various options that can guarantee the SDGs. Through the study, several alternatives KRP content are produced to address strategic issues in the SDGs concept in a region. In addition, if it is confirmed that the KRP being evaluated has the potential to have a quite negative impact on SGDs, then it is necessary to develop one or more new alternatives to improve or change existing designs.

The range of alternatives can be expanded through group discussions or by involving expert perspectives based on the results of the PPP impact assessment. In

developing alternatives, it is important to consider the following:

1. National mandates, interests, and policies that need to be maintained.
2. The potential of the existing socio-political situation.
3. The ability of government institutions to implement.
4. Ability and awareness of the people involved.
5. Global awareness, compliance, and engagement.
6. Market conditions and investment opportunities that may exist.

The aim of formulating recommendations is to reach an agreement on improving the KRP content based on formulation results alternatives, as well as formulating supporting steps as a consequence of the implementation of the KRP. The table below will explain alternatives and recommendations related to KLHS to improve KRP.

Table 5. KLHS/SEA Recommendations for Improving KRP

Type/ KRP Content	Constraints/Problems	KRP Repair Alternatives	Recommendations for Improving KRP
Spatial Structure Plan			
<ul style="list-style-type: none"> • Land Transportation Network System Plan (Primary arterial road network plan/ Trans Papua) 	<ul style="list-style-type: none"> • Change of land use 	<ul style="list-style-type: none"> • Creation of access roads between settlements that are separate from primary arterial roads/Trans Papua • Replacing three times the area of irrigated 	<ul style="list-style-type: none"> • Technical recommendations based on considerations of carrying capacity and land capacity in the construction of primary arterial/Trans Papua routes will be implemented at the project level as guidelines for improving ecosystem

Type/ KRP Content	Constraints/Problems	KRP Repair Alternatives	Recommendations for Improving KRP
		<p>rice fields and one time the area of non-irrigated land with new dry land farming, as well as building a new irrigation network system that can be added to the Policy and Program Plan (KRP) for Agricultural Designated Areas</p>	<p>function and reducing impacts and risks on the environment</p> <ul style="list-style-type: none"> • Construction of the primary arterial/Trans Papua road network accompanied by green open space facilities and a good drainage system as an effort to minimize the effects of high GHG emissions and the occurrence of inundation/flooding during times of high rainfall.
<ul style="list-style-type: none"> • Railway Network Development Plan, which passes through Sorong Regency and connects Sorong City-Manokwari, as stipulated in the National RTRW 	<ul style="list-style-type: none"> • Land conversion: Ecosystem function and mitigation of environmental impacts and risks; • Utilization of space around railway track monitoring that interferes with the interests of railway transportation operations and safety 	<ul style="list-style-type: none"> • Diverting the area of irrigated rice fields to triple and the area of non-irrigated land to double, then opening up new land for dry land farming. Apart from that, a new irrigation network system will also be built which can be included in the Agricultural Designated Area Policy Plan (KRP) • Environmental conservation and protection 	<ul style="list-style-type: none"> • Technical recommendations based on considerations of carrying capacity and land capacity in the construction of the Railway Network will be implemented as a guide at the project level, with the aim of improving ecosystem function and reducing impacts and risks on the environment • It is not permitted to use space around railway track monitoring which interferes with the interests of railway transportation operations and safety. • The construction of the Railway Network is accompanied by green open space facilities and a good drainage system as an effort to minimize the effects of high GHG emissions and the occurrence of inundation/flooding during times of high rainfall.
<ul style="list-style-type: none"> • Plans for the Environmental Infrastructure Network System (Regional Waste Network System) include the development of existing Final Disposal Sites (TPA) as well as the development of new TPA plans 	<ul style="list-style-type: none"> • Awareness and support of the local community and government • Determining the location for the new landfill plan • Inadequate supporting facilities and infrastructure 	<ul style="list-style-type: none"> • Improving the TPST management system to TPST-3R which aims to ensure that the waste that enters the TPA is waste that cannot be processed so that it can lighten the burden on TPA performance and can extend the operational life of the TPA. • Improving the waste processing system at the landfill using a sanitary landfill and processing methane gas produced by the waste 	<ul style="list-style-type: none"> • To support alternative improvements to the KRP, it is necessary to prepare a Waste Masterplan for Sorong Regency, which will later be clearly detailed in the document, starting from the generation and composition of waste in Sorong Regency to appropriate waste management in accordance with the conditions and character of the area. • To emphasize the implementation of the program in the Waste Masterplan, a Regional Waste Regulation can be drafted with the aim of a more controlled waste

Type/ KRP Content	Constraints/Problems	KRP Repair Alternatives	Recommendations for Improving KRP
		<ul style="list-style-type: none"> There is socialization about the Waste Bank which aims to optimize waste management starting from the source (households) 	management system and firm action against those who do not carry out waste management properly (resulting in environmental damage).
Spatial Pattern Plan			
Mining Designation Area Plan		<p>It is necessary to add the main program to develop and manage mining of non-metallic minerals in the form of rock:</p> <ul style="list-style-type: none"> Granting mining business permits with the condition of ownership of environmental documents Community Empowerment and Development Environmental conservation and protection 	Recommendations for improving the KRP are more directed at the legality of environmental documents such as UKL/UPL and AMDAL as an effort to control environmental damage
Industrial Designation Area Plan	<ul style="list-style-type: none"> A quite extensive of land use changing Arrangement of industrial zones that are still scattered Lack of obedience/compliance by business actors/industry owners in monitoring and managing the environment. Example: less than optimal performance of industrial WWTP 	<ul style="list-style-type: none"> Development of industrial areas managed by management (estate management) professionally. The area has provided industrial infrastructure such as power plants and waste water treatment and implemented the concept of clean production and zero waste. Supervision and control of land conversion due to the growth of residential, trade and service areas caused by the development of industrial activities 	<ul style="list-style-type: none"> To support alternative KRP improvements, recommendations are needed in the form of preparing an Industrial Estate and KLHS Masterplan for the industrial sector Recommendations for improving the KRP are more directed at the legality of environmental documents such as UKL/UPL and AMDAL as an effort to control environmental damage Requires plans for the construction of liquid and solid waste management installations to be included in the licensing requirements for industrial establishments (small, medium and large industries)
Settlement Allocation Plan	<ul style="list-style-type: none"> Housing zones are less well organized and there are still housing/settlement areas that fall into the slum area category 	<ul style="list-style-type: none"> KRP for basic facilities and infrastructure in residential areas has been contained in the KRP sub-program for residential use, it only needs to be clarified 	<ul style="list-style-type: none"> An environmental sustainability program in residential areas that is based on local wisdom and has a view that includes environmental aspects Identification and recording actions are needed to plan the

Type/ KRP Content	Constraints/Problems	KRP Repair Alternatives	Recommendations for Improving KRP
	<ul style="list-style-type: none"> Basic facilities and infrastructure (infrastructure) in residential areas, such as drainage, have not yet been met 	about the priorities for providing what infrastructure and infrastructure are needed in efforts to develop and improve them both in urban and rural settlements.	immediate rearrangement and relocation of settlements located in disaster-prone areas and protected areas. The aim is to provide protection to the people living in the area and reduce conflicts in the use of space

Source: Analysis Results, 2023

To integrate the results of Environmental Sustainability (KLHS) into the 2012-2033 Revision of the Regional Spatial Plan (RTRW) for Sorong Regency, this was done by submitting KLHS recommendations by the KLHS Drafting Team to the RTRW Revision Drafting Team. This is done as part of the decision-making process in the following manner:

- Present strategic issues agreed upon by stakeholders
- Displays the results of studies on the influence of KRP on the environment and sustainability
- Displays alternative repair steps
- Submit recommendations for decision-making

CONCLUSION

The conclusions of this research are (a) In the Strategic Environmental Study (KLHS) in the 2012-2032 Revision of the Regional Spatial Plan (RTRW) of Sorong Regency, it was identified that there were 8 Spatial Structure Plan KRPs and 6 Spatial Pattern KRPs that had the potential to influence environmental conditions, based on an analysis of the impact of sustainable development issues on spatial planning policies; (b) The results of the analysis regarding the influence of sustainable development issues on KRP show that of the 9 KRP analyzed, only 3 items require a study

of SEA content, while the other 6 items do not require study of SEA content. In addition, of the 6 Spatial Patterns in the KRP, all require a study of SEA content; and (c) The alternative formulation is to reach an agreement on improvements in the KRP, by detailing the results of the alternative formulation, as well as planning supporting follow-up actions as a result of the implementation of the KRP.

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