

Conformity Of The Content Of The Spatial Pattern Plan Of The Rtrw Of Tanjungbalai City With The Rtrw Of North Sumatra Province

1st Indri Meiyanti

Postgraduate Student of Urban and Regional Planning
Universitas Pembangunan Panca Budi
Medan, Indonesia

indrimeiyanti15@gmail.com

2nd Abdi Sugiarto

Master of Urban and Regional Planning
Universitas Pembangunan Panca Budi
Medan, Indonesia

abdi_sugiarto@dosen.pancabudi.ac.id

Abstract— The suitability of spatial pattern plans between Provincial RTRWs and City/Regency RTRWs is very important to ensure coordinated, sustainable, and efficient spatial management. This alignment supports harmonious development policies, prevents land use conflicts, and optimizes the use of natural resources and infrastructure. In addition, this conformity helps control development to fit the long-term vision, improve disaster risk mitigation, and create certainty for investment, resulting in safer and more targeted spatial planning at various levels of government. Fundamental problems and conflicts in space utilization arise due to significant challenges caused by overlapping policies, regulations, and geospatial information. The location of the study is in Tanjungbalai City which analyzes the comparison of the City Spatial Pattern Plan with the Provincial Spatial Pattern Plan. The provincial spatial pattern plan used is the 2023 Revision of the North Sumatra Provincial RTRW, while the urban spatial pattern plan uses the 2023 Tanjungbalai City RTRW Revision. This study aims to provide an overview of the evaluation of the non-conformity of the Tanjungbalai City Revised spatial pattern plan to the Revision of the RTRW of North Sumatra Province and provide steps to resolve the non-conformities that occur that are useful as material for discussion and evaluation of the Revised RTRW of Tanjungbalai City at the Provincial level.

Keywords: *Synchronization, Provincial RTRW Revision, City RTRW Revision.*

I. INTRODUCTION

One of the main problems in space utilization is the overlap of policies, regulations and geospatial information, which arises due to inconsistencies in spatial planning, forest areas, permits, and land rights. Based on Article 24 paragraph (2) of Government Regulation Number 43 of 2021 concerning the Settlement of Inconsistencies in Spatial Planning, Forest Areas, Permits, and/or Land Rights, as well as Article 4 paragraph (9) of the Regulation of the Coordinating Minister for Economic Affairs Number 1 of 2021 concerning Procedures for the Preparation, Update, and Determination of Indicative Maps of Overlapping Space Utilization, the Decree of the Coordinating Minister for Economic Affairs Number

223 of 2021 has been issued. This decision establishes the Indicative Map of Overlapping Space Utilization (PITTI) which covers the discrepancy of regional boundaries, spatial planning, and forest areas in North Sumatra Province, as well as presenting the results of the study and maps of the discrepancy.

Synchronization of spatial patterns in provincial Regional Spatial Plans (RTRW) with district/city RTRWs is important in spatial planning in Indonesia. Spatial policies that have been set at the provincial level can be a reference at the district/city level. This ensures that the direction of regional development in the district/city is in accordance with the development goals that have been set by the province and the country, such as economic development, social welfare, and environmental conservation.

Spatial planning that is not synchronized between provincial RTRWs and districts/cities often results in land use conflicts, such as industrial estates in residential areas or the conversion of protected areas into commercial areas. Synchronization of spatial patterns can reduce the risk of this overlap, so that land use becomes more optimal and sustainable, including protecting protected forest areas from inappropriate development. In addition, RTRW synchronization also increases efficiency in infrastructure planning such as roads and bridges, so that the infrastructure built is more optimal in meeting the needs of the community and supporting the regional economy. At the global level, this synchronization supports the Sustainable Development Goals (SDGs) related to the preservation of terrestrial ecosystems, sustainable settlements, and action against climate change. Cross-regional spatial challenges, such as river management and water catchment areas, can also be overcome with good synchronization, so that the policies implemented are more integrated and effective in minimizing the adverse impact of policy differences between regions.

In the preparation and determination of RTRW (Regional Spatial Plan) and RDTR (Detailed Spatial



Plan), as well as in the substance approval process, it is very important to pay attention to the resolution of discrepancies between spatial patterns in spatial plans and forest areas, permits, and/or land rights. This discrepancy can cause conflicts of interest, both between land use and forest area status, as well as with land use permits that have been issued previously. Therefore, to ensure the harmony and sustainability of space use, it is necessary to conduct a thorough review of the status of the area, permits, and land rights involved in each planning stage, so that the resulting spatial planning policies can be implemented effectively without violating applicable provisions (Hayati and Sulastri, 2022).

II. LITERATURE REVIEW

The content of the Provincial RTRW includes objectives, policies, and spatial planning strategies, spatial structure plans, spatial pattern plans, provincial strategic areas, as well as directions for the use and control of space utilization in the provincial area. In formulating the Provincial RTRW content, it is necessary to refer to the National RTRW content and its detailed plans (island/archipelago RTR, RTR KSN, RZ KAW, and RZ KSNT), as well as pay attention to the RTRW of neighboring provinces. In addition, it is important to consider the aspirations of the community and align the Regency/City RTRW within the relevant provincial area.

The content of the City RTRW includes objectives, policies, and spatial planning strategies; spatial structure plan; spatial pattern plan; determination of the city's strategic area; as well as directions for the use and control of space utilization in the city area. In formulating the content of the City RTRW, it is necessary to refer to the spatial plan at a higher level, such as the National RTRW and its detailed plan (island RTR and national strategic area RTR), the Provincial RTRW and its detailed plan (provincial strategic area RTR), and consider the adjacent Regency/City RTRW.

Changes in RTRW in districts/cities have the potential to create new problems due to the need to improve the investment climate, which is often tried to be accommodated in these changes. This interest is sometimes abused, which can lead to overlapping planning.

Policies regarding regional boundary conflicts in Indonesia are a crucial issue regulated in various laws, such as Law Number 22 of 1999 which was revised to Law Number 32 of 2004, as well as Law Number 23 of 2014 concerning Regional Government. However, until now, conflicts or disputes over regional boundaries in Indonesia have not been resolved. Currently, the Ministry of Home Affairs (Kemendagri) plays the main

sector in resolving regional boundary conflicts by providing regulations through the determination carried out by the ministry. Nevertheless, resolving regional boundary conflicts remains a complex challenge that requires cooperation from various relevant parties to reach a solution that satisfies all parties involved.

The study of geography serves as a guide in conducting research and answering questions about the integration of facts in the context of the geography paradigm, such as the context of space. In answering the basic postulate of theory and conducting tests, each concept can be used as a basis for building a theory (Effendi, 1991). Various spatial analyses can be carried out using the GIS method, including overlap analysis, scoring, spatial linkage, and other spatial analyses (Kurniati et al. 2015). The geospatial data overlay technique is an analysis method that allows the incorporation of multiple layers of spatial data to identify and understand the spatial relationships between various elements of space. Through this technique, various information such as land use, topography, transportation network, and risk zoning can be analyzed simultaneously in a single map, thus providing a comprehensive picture of the actual conditions of an area. This overlay process helps uncover empirical facts in the field, for example, showing the relationship between settlements and disaster-prone areas or identifying conflicts between protected areas and commercial use areas (Kurniawan et al. 2024).

Spatial pattern plans in border areas can be unified in one database to support the preparation of spatial plans that are harmonized between regions. This integrated database allows for accurate mapping and harmonization of spatial plans, so that the spatial planning policies implemented can be more consistent and integrated along the border area. Thus, each region can understand the potential and limitations that exist in their border areas, both in environmental and socio-economic aspects. In addition, this integrated database will be an important foundation for space use and control policies, including to address problems such as uncontrolled land use conversion or land use conflicts. This data-based policy will also support efforts to supervise and control development in border areas, so that spatial planning can be implemented effectively and sustainably, maintaining a balance between development needs and environmental conservation (Astuti and Mahendra, 2015).

Thematic maps from the Thematic Geospatial Information dataset generated by the guardian can be integrated into a single map. In the preparation of the Regency/City RTRW map, this dataset was shared through the national geospatial information network to overcome conflicts in space utilization (Nurwadjedi et al. 2019).

The inconsistency in land use is influenced by several factors, such as economic needs, the need for housing, proximity to economic centers and main roads, lack of socialization of regulations to the community, population density, and the existence of public facilities in the vicinity. Although the government has implemented four instruments to control the use of space, namely zoning regulations, licensing, incentives and disincentives, and the provision of sanctions, the implementation is considered not to have achieved optimal results. To improve the use of space in accordance with the spatial plan, it is necessary to improve and improve the implementation of the four control instruments, so that it can create harmony and more effective and sustainable use of space (Sejati et al. 2020). This land use misalignment can also occur in areas around riverbanks that require land management that aims to manage, control, and supervise land use with a focus on community welfare. With the implementation of good management on riverbank land, it is hoped that it can create a healthy and fresh environment, as well as strengthen the carrying capacity of the land from the threat of pollution and erosion (Sugiarto, 2024).

The discrepancy that arises due to the difference in spatial land allocation between the LSD map and the determination of LP2B land in the district/city can be harmonized in the regional spatial plan and detailed spatial plan. Technical Instruction Number 5/Juknis-HK.02/VI/2022 dated June 14, 2022 regulates the settlement of non-conformities in protected rice fields in accordance with spatial plans and other permits, which allows the transfer of land to other cultivated lands. The process includes submitting a request for recommendation to the Head of the Regency/City Land Office, reporting to the Minister of ATR/BPN through the Head of the Regional Office, as well as follow-up synchronization with the regional spatial plan and its details (Hayuningtyas and Nursadi, 2024).

The implementation of the control of the conversion of agricultural land into non-agricultural land by the government through laws and regulations still does not provide a sense of justice for the community. Ambiguity and indecisiveness in the regulations give rise to various interpretations. Although the government continues to issue new regulations, the lack of socialization makes it difficult for the public to understand the rules, so that regulations are only effective on paper (Rahmanto, 2022).

Disputes over overlapping land rights are common, resulting in uncertainty in land registration and harming certificate owners. This also reflects land administration errors (Febriana and Darmoko, 2022).

In the process of revising the RTRW of North Sumatra Province, as well as the discussion, facilitation, and evaluation of the Regency/City Spatial Plan (RTR),

many problems were found due to overlap caused by differences in map scale, RTR content, and RTR databases. This issue refers to the Regulation of the Minister of Agrarian and Spatial Planning/Head of the National Land Agency Number 11 of 2021 concerning Guidelines for the Preparation, Review, Revision, and Issuance of Approval of the Substance of the Regional Spatial Plan, as well as Ministerial Regulation Number 14 of 2021 concerning Guidelines for the Preparation of Databases and the Presentation of Regional Spatial Plan Maps.

The spatial pattern plan comparison scheme of each RTRW revision document (provincial and district/city) can provide a clear view of the overlap of space utilization. This provides a solid basis for decision-making, facilitates investments, and ensures compliance with applicable regulations. In addition, this scheme also supports the government's efforts to achieve harmony between space utilization policies.

III. METHOD

Research Area

The research is in the administrative area of Tanjungbalai City with an area of $\pm 6,007.30$ hectares consisting of 6 sub-districts. The map of the research area is presented in Figure 1.

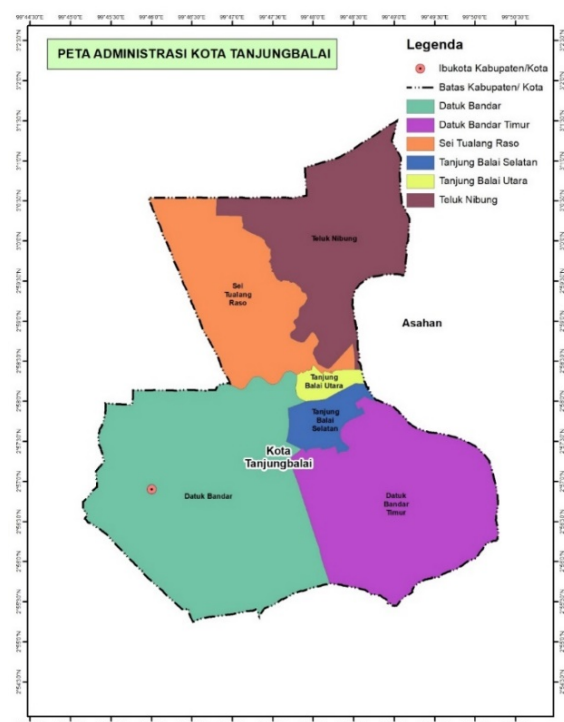


Figure 1. Map of the Research Area

Research Approach

This research refers to the general strategy or method used in collecting and analyzing research data (Abdiyanto, 2020). This study is a descriptive-

qualitative research using a geospatial analysis approach based on geographic information systems to conduct spatial analysis of spatial suitability. The overlay operation technique is used to see the comparison between spatial objects, so that the comparison data can be grouped into a research conclusion.

Data Collection

The data needed to obtain information in the research is in the form of secondary data obtained from related agencies, including:

1. Technical Materials and Revised Database for the 2023 North Sumatra Provincial RTRW, obtained from the North Sumatra Provincial Public Works and Spatial Planning Office.
2. Technical Materials and Revised Database for the 2023 Tanjungbalai City RTRW, obtained from the Tanjungbalai City Public Works and Spatial Planning Office.

Data Analysis Techniques

The data analysis used in this study is geospatial analysis based on geographic information systems using ArcGIS applications. Spatial analysis was carried out by *overlapping* the spatial pattern plan of the RTRW of North Sumatra Province in Tanjungbalai City and the spatial pattern plan of the RTRW of Tanjungbalai City which resulted in a juxtaposition scheme, conformity category, conformity typology, and synchronization follow-up

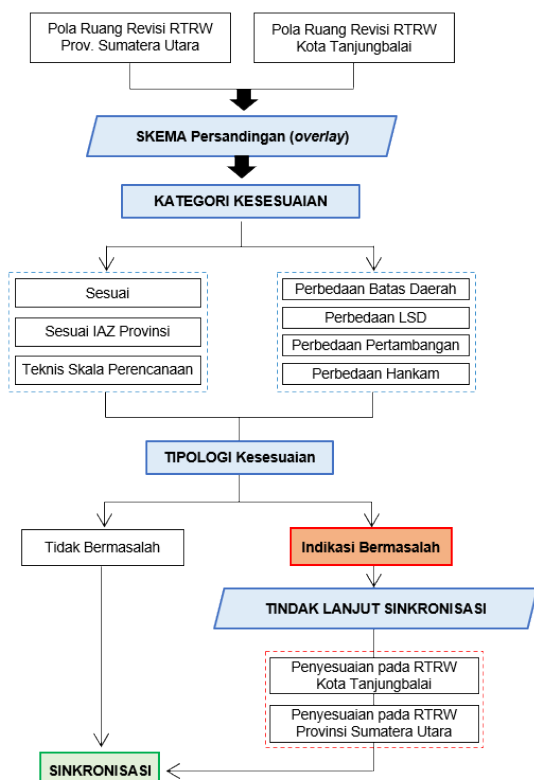


Figure 2. Research Flow Diagram

1. Space Matching Scheme

The comparison scheme was carried out by comparing the spatial pattern plan of the RTRW of North Sumatra Province in Tanjungbalai City with the spatial pattern plan of the RTRW of Tanjungbalai City on all spatial patterns that overlapped with the spatial overlay. The juxtaposition of each spatial pattern plan is a juxtaposition scheme that informs each overlap of the spatial pattern plan.

2. Space Suitability Category

The matching scheme is then grouped into conformity categories which are divided into 6 groups, namely:

- a) Appropriate, namely for similar matching schemes. Example: "Agricultural Area" in RTRW North Sumatra Province; "Food Crop Area" in the Tanjungbalai City RTRW.
- b) In accordance with the Zoning Directive Indication (IAZ) of the RTRWP, namely for a matching scheme that is not similar, but does not contradict the zoning regulations. Where the Tanjungbalai City RTRW spatial pattern plan in this category can be accommodated as an allowed and conditionally allowed activity in the North Sumatra Province RTRW spatial pattern plan control rules in the Zoning Directive Indication (IAZ). The emergence of this category is due to a difference in the scale of the mandated planning, where the Provincial RTRW cannot allocate a more detailed spatial pattern than the City RTRW. Example: "Residential Area" in RTRW North Sumatra Province; "Public Facilities and Social Facilities Area" in the Tanjungbalai City RTRW, where "Public Facilities and Social Facilities Area" will be included in the permitted activities with the condition that it is in the spatial pattern of the Provincial RTRW "Residential Area" in the Zoning Directive Indication rules.
- c) Technical Planning Scale, namely for the juxtaposition scheme in the spatial pattern of "Road Bodies" and "Water Bodies" of City RTRWs that are not allocated in the spatial pattern of the Provincial RTRW. Example: "Residential Area"; "Water Body".
- d) The difference in Regional Boundaries, namely for the matching scheme that is not in accordance with the definitive regional boundaries referring to Permendagri Number 78 of 2016 concerning the Regional Boundaries of Asahan Regency and Tanjung Balai City, North Sumatra Province.
- e) The Difference in Protected Rice Fields (LSD), namely for the matching scheme that is not in accordance with the Minutes of LSD Clarification in Tanjungbalai City (agreement between the regional head and the Ministry of ATR) dated September 22, 2022, states that "the Tanjungbalai City Government

is committed to integrating land designated as Indicative LSD into the Revised Regional Spatial Plan or Detailed Spatial Plan as part of the Food Crop Area or Food Crop Sub-Zone".

- f) The difference in the Defense and Security Area (Hankam), namely for a matching scheme that is not in accordance with the boundaries of the Land Rights (HAT) from the North Sumatra Provincial BPN Regional Office in 2022. The revision of the RTRW of North Sumatra Province in 2023 has referred to spatial references in the regulation in question.

3. *Typology of Space Suitability*

The six categories of conformity that have been carried out are then regrouped into a typology of conformity which is divided into 2 groups, namely:

- a) No Problem, namely for the category of conformity in the group "suitable", "according to the provincial IAZ", and "technical planning scale". The typology in this group is a typeface that has been synchronized, so it does not require follow-up synchronization.
- b) Problematic Indication, namely for the category of conformity in the group of "differences in regional boundaries", "differences in LSD", "differences in mining areas", and "differences in Hankam areas". The typology in this group is a typology that is not synchronized and requires follow-up synchronization.

4. *Follow-up Synchronization of Space Utilization*

Follow-up synchronization is in the form of improvements and adjustments that need to be agreed upon by both parties between the Tanjungbalai City Government and the North Sumatra Provincial Government. Where, the improvements are carried out on the content of the Revised RTRW of North Sumatra Province or carried out on the content of the Revised RTRW of Tanjungbalai City. The follow-up of this synchronization is during the provincial evaluation and the legalization process of spatial law products in the two regions.

IV. RESULT AND DISCUSSION

North Sumatra Province RTRW Revised Spatial Pattern Plan for 2023 in Tanjungbalai City

The spatial pattern plan of the RTRW of North Sumatra Province is described in the unity of the administrative area which is all divided/allocated into the spatial pattern plan. The regional boundaries used refer to the Minister of Home Affairs Regulation Number 78 of 2016 concerning the Regional Boundary between Asahan Regency and Tanjungbalai City, North Sumatra Province.

The spatial pattern plan for the Revised RTRW of North Sumatra Province in Tanjungbalai City is allocated entirely to cultivation areas with 5 spatial pattern classifications, namely agricultural areas of 9.65%, defense and security areas of 0.12%, local

protection areas of 4.23%, water body areas of 6.67% and residential areas of 79.43%. The residential area is very dominant in the center of Tanjungbalai City, while the agricultural area is spread in the hinterland area (suburbs) of Tanjungbalai City.

The agricultural area located in the North Sumatra Province RTRW is the latest data on Indicative Protected Rice Fields (LSD) in 2022 sourced from the Ministry of ATR/Head of BPN. So that the agricultural land in question is a food crop area (rice field) that must be accommodated in the Regency/City RTRW in North Sumatra Province.

The defense and security area at the North Sumatra Provincial RTRW is the Mako Denpom Tanjung Balai Asahan Area and Company 3 Battalion B of the North Sumatra Police Brimob Unit which is allocated based on the boundaries of the land rights (HAT) sourced from the North Sumatra Provincial BPN Regional Office in 2022. So that the Revision of the Tanjungbalai City RTRW is recommended to use the same reference.

The distribution of the area of the Revised RTRW spatial pattern plan of North Sumatra Province in 2023 is presented in Table 1 and the spatial pattern plan map is presented in Figure 3.

Table 1. Distribution of the Revised Spatial Pattern Plan of RTRW of North Sumatra Province in Tanjungbalai City

It	Area	Space Pattern Plan	Area (Ha)	%
1	Protected Areas	Water Bodies	400,56	6,67
2		Local Protected Areas	253,83	4,23
Sub Total Protected Areas			654,39	10,89
3	Cultivation Area	Agricultural Area	579,48	9,65
4		Residential Areas	4.766,12	79,34
5		Defense and Security Zone	7,31	0,12
Sub Total Aquaculture Area			5.352,91	89,11
Total			6.007,30	100,00

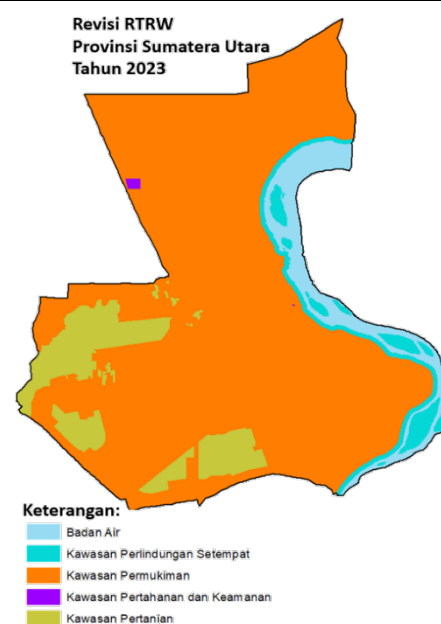


Figure 3. Map of the Revised Spatial Pattern of RTRW of North Sumatra Province in Tanjungbalai City

Tanjungbalai City RTRW Revised Spatial Pattern Plan in 2023

The spatial pattern plan in the 2023 Tanjungbalai City RTRW Revision consists of 21 spatial pattern classifications with a proportion of protected areas of 50.00% and a proportion of cultivation areas of 128.89%. The largest spatial pattern classification is dominated by residential areas at 72.72% and trade and service areas at 10.53%. The distribution of the area of the Revised RTRW spatial pattern plan of Tanjungbalai City in 2023 is presented in Table 2 and the spatial pattern plan map is presented in Figure 4.

Table 2. Distribution of the Revised Space Pattern Plan of the Tanjungbalai City RTRW

No	Area	Space Pattern Plan	Area (Ha)	%
1	Protected Areas	Water Bodies	494,20	14,72%
2		Local Protected Areas	176,51	5,26%
3		Rimba City	333,00	9,92%
4		City Park	601,14	17,90%
5		Funeral	64,44	1,92%
6		Cultural Heritage Area	9,73	0,29%
Sub Total Protected Areas			1.679,01	27,95%
7	Cultivation Area	Road Bodies	45,08	1,34%
8		Food Crop Area	63,59	1,89%
9		Plantation Areas	463,51	13,80%
10		Non-Metallic Mineral Mining Areas	12,44	0,37%
11		Industrial Allocation Area	54,98	1,64%
12		Tourism Area	101,63	3,03%
13		Residential Areas	2.441,95	72,72%
14		Public Facilities and Social Facilities Area	177,27	5,28%
15		Non-Green Open Space Area	4,74	0,14%
16		Urban Infrastructure Areas	1,48	0,04%
17		Mixed Area	569,06	16,95%
18		Trade and Service Zone	353,62	10,53%
19		Office Area	10,87	0,32%
20		Transportation Area	17,89	0,53%
21	Defense and Security Zone	10,16	0,30%	
Sub Total Aquaculture Area			4.328,28	72,05%
Total			6.007,30	100,00%

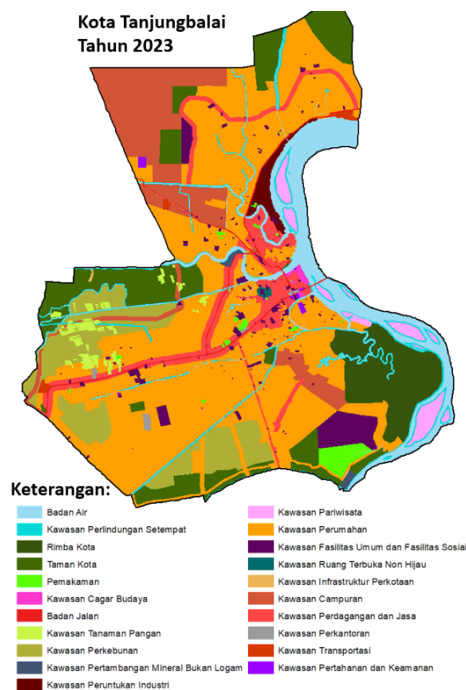


Figure 4. Map of the Revised Spatial Pattern of the Tanjungbalai City RTRW

Conformity of Regional Administrative Boundaries in Tanjungbalai City

Based on the Minister of Home Affairs Regulation Number 78 of 2016 concerning the Regional Boundary of Asahan Regency with Tanjung Balai City, North Sumatra Province, it is known that Tanjungbalai City as a whole borders Asahan Regency with 1 (one) segment that forms a whole polygon. Based on the polygon, it is known that the area of Tanjungbalai City is 6,007.21 hectares, where the 2023 North Sumatra Provincial RTRW Revision has referred to this data with the area in the spatial pattern plan in Tanjungbalai City covering an area of 6,007.21 hectares.

Likewise, the area of regional administration described in the Tanjungbalai RTRW Revised spatial pattern plan with the same area, which is 6,007.21 hectares. So that the regional boundaries on the Tanjungbalai City RTRW are appropriate. The distribution of the area of the category of conformity to the spatial pattern plan matching scheme is presented in Table 3 and the map of conformity of regional administrative boundaries in Tanjungbalai City is presented in Figure 5.

Table 3. Conformity of Regional Administrative Boundaries in Tanjungbalai City

No.	Minutes of the Boundaries of Tanjungbalai City	Area (Ha)
1	Revision of Tanjungbalai City RTRW	6.007,21
2	Revision of RTRW Prov. North Sumatra	6.007,21
3	Permendagri	6.007,21

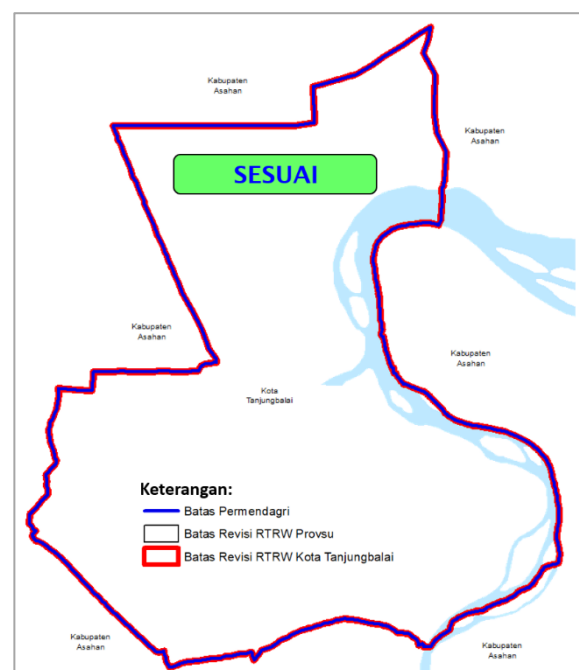


Figure 5. Map of Conformity of Regional Administrative Boundaries in Tanjungbalai City

Typology and Categories of Nonconformity in Tanjungbalai City

From the results of the comparative analysis of the PITTI scheme updating data in 2023, it is known

that in Tanjungbalai City, the unproblematic typology has the largest proportion, namely 90.97%. Meanwhile, the typology of problematic indications (3) in Tanjungbalai City has a fairly large proportion, namely 0.50% and in this typology the process of resolving PITTI in Tanjungbalai City will be followed up in the revision of the Tanjungbalai City RTRW.

The typology map of conformity is presented in Figure 6 and the extent of the typology of conformity is presented in Table 4.

Table 4. Typology of Conformity to the Category of Conformity of Spatial Plans in Tanjungbalai City

Typology	Categories Non-Conformity	Area (Ha)	%
1	No Problems	5.465,04	90,97%
3	Problematic Indications	29,98	0,50%
99	Locus Found in Water Bodies	512,28	8,53%
Total		6.007,30	100,00%



Figure 6. Typology Map of Conformity to the Category of Conformity of Spatial Plan Suitability in Tanjungbalai City

Scheme on Problematic Indication Typology in Tanjungbalai City

The scheme on the 2023 PITTI Spatial Planning Problem Indication Typology in Tanjungbalai City consists of 15 non-conformity schemes with a total area of 24.32 Ha or 0.50%. In this scheme, there is an implication that each scheme pairing has overlapping conclusions that do not match.

This non-conformity scheme is divided into 4 (four) groups in Tanjungbalai City to find out the record of non-conformities that can be concluded in the follow-up of the solution, the groups are described as follows:

1. Protected Rice Field Data Matching Scheme (LSD)

The matching scheme on the Differences in Protected Rice Field Land (LSD) Data is a group for the matching scheme that has a depiction of the spatial pattern of food crop areas in the City RTRW with the Special Provisions for Sustainable Food Agriculture Areas (KP2B) in the Provincial RTRW. Where the special provisions in the RTRW of North Sumatra Province refer to the spatial data resulting from the agreement of the regional head with the Ministry of ATR in 33 Regencies/Cities. Where the Minutes of LSD Clarification in Tanjungbalai City were agreed on September 22, 2022.

In the Minutes it is stated that "The Tanjungbalai City Government is committed to integrating land designated as Indicative LSD into the Revised Regional Spatial Plan or Detailed Spatial Plan as part of the Food Crop Area or Food Crop Sub-Zone".

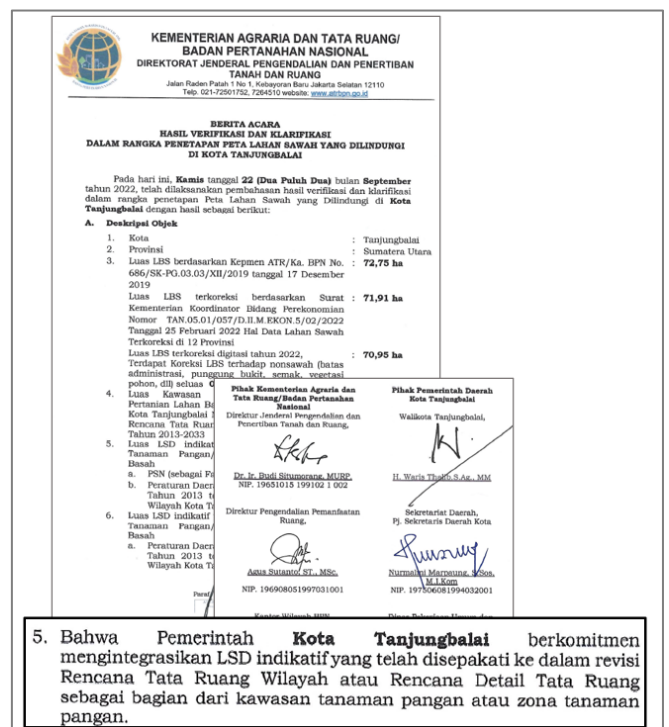


Figure 7. Minutes of Clarification of Tanjungbalai City Rice Field Data in 2022

2. Protected Rice Field Data Matching Scheme (LSD)

The juxtaposition scheme on the Difference in Defense and Security Area Data is a group for the scheme of inconsistency between the spatial pattern of the defense and security area in the Provincial RTRW and the spatial pattern of the defense and security area in the City RTRW. The difference in this scheme is in the object of the Mako Denpom Tanjung Balai Asahan and Company 3 Battalion B of the North Sumatra Police Brimob Unit, where in the Provincial RTRW the spatial boundary of Land Rights (HAT) has been used while in the Tanjungbalai City RTRW has not referred to the HAT. From the results of the analysis, it is known that

the comparison scheme in the Hankam Area data difference has an area of 8.85 hectares or 0.15% in Tanjungbalai City.

3. Matching Scheme on Differences in Mining Areas

The Matching Scheme on Differences in Mining Area Data is a group for the scheme of inconsistency between the spatial pattern of non-metallic mineral mining areas in the City RTRW and the spatial pattern of non-metallic mineral mining areas in the Provincial RTRW. Where in accordance with the input of the North Sumatra Province Ranperda Ranperda by the Ministry of ATR that the mining area is not described as a solid zone in the spatial pattern plan, but becomes an overlay zone in the Special Provisions of the Mining Area. Then the addition of mining activities is recommended to be regulated in agricultural areas to be allowed with the conditions in the Zoning Directive Indication (IAZ) of the Provincial RTRW and the General Provisions of Zoning (KUZ) of the City RTRW.

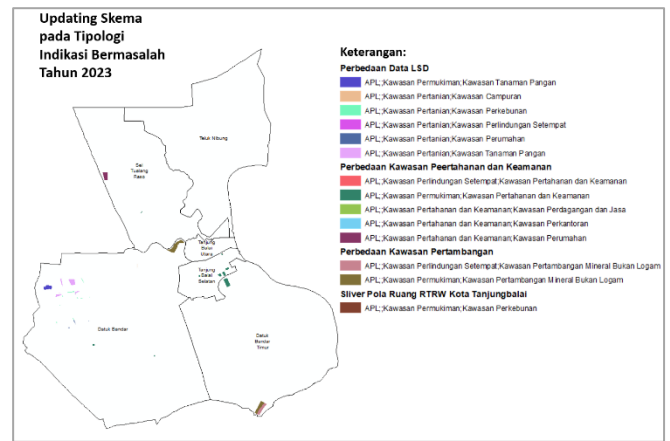
From the results of the analysis, it is known that the matching scheme in the Data Difference of Mining Areas has an area of 12.44 hectares or 0.21% in Tanjungbalai City.

4. Matching Scheme on Silver Space Patterns

The Parallel Scheme on the Sliver Spatial Pattern is a group for the scheme of inconsistency between spatial patterns with a very small area (<0.0625) detected on the spatial pattern map of the Ranperda RTRW of Tanjungbalai City. In this polygon, it is recommended to be enularized in the pattern of the space next to it. From the results of the analysis, it is known that the matching scheme on the Difference in the sliver polygon has an area of 0.04 hectares or 0.001% in Tanjungbalai City, in the APL inconsistency scheme; Residential Area; Plantation Area.

Table 5. Spatial Suitability Scheme on Problematic Indication Typology in Tanjungbalai City

It	Typology	Space Suitability Scheme	Note	Area (Ha)
1	Problematic Indications	APPS; Residential Area; Food Crop Area	LSD Data Differences	2,61
2		APPS; Agricultural Area; Mixed Area	LSD Data Differences	0,21
3		APPS; Agricultural Area; Plantation Areas	LSD Data Differences	1,12
4		APPS; Agricultural Area; Local Protected Areas	LSD Data Differences	0,11
5		APPS; Agricultural Area; Residential Areas	LSD Data Differences	0,27
6		APPS; Agricultural Area; Food Crop Area	LSD Data Differences	4,32
7		APPS; Local Protection Area; Defense and Security Zone	Differences in Hankam Areas	0,04
8		APPS; Defense and Security Zone; Trade and Service Zone	Differences in Hankam Areas	0,02
9		APPS; Defense and Security Zone; Office Area	Differences in Hankam Areas	0,01
10		APPS; Defense and Security Zone; Residential Areas	Differences in Hankam Areas	2,97
11		APPS; Residential Area; Defense and Security Zone	Differences in Hankam Areas	5,81
12		APPS; Residential Area; Non-Metallic Mineral Mining Areas	Differences in Mining Areas	0,60
13		APPS; Residential Area; Non-Metallic Mineral Mining Areas	Differences in Mining Areas	8,52
14		APPS; Local Protection Area; Non-Metallic Mineral Mining Areas	Differences in Mining Areas	3,32
15		APPS; Residential Area; Plantation Areas	Sliver RTRWK Tanjungbalai	0,04
Total				24,32



Follow-up on Resolving Spatial Pattern Mismatches in Tanjungbalai City

The Matrix for Resolving Inconsistencies in Regional Boundaries, Spatial Planning, and Forest Areas in Tanjungbalai City was carried out for a follow-up plan to resolve the overlap between the spatial pattern of the Tanjungbalai City RTRW and the spatial pattern of the North Sumatra Province RTRW. In this case, there is an agreement by the Regional Government whether the improvement is carried out on the Provincial RTRW content or the City RTRW content so that it can be easily synchronized and evaluated in the future during the legalization process of the RTRW legal product.

From the results of the meeting, FGD, and discussions (attached documentation) that have been carried out by both parties between the North Sumatra Provincial Government and the Tanjungbalai City Government, it has been agreed that all improvements will be made to the content of the Tanjungbalai City RTRW spatial pattern which will later be adjusted to the latest data. The area of non-conformity that must be resolved in Tanjungbalai City is 29.98 hectares (0.50%). In more detail, the matrix for resolving PITTI non-conformities in 2023 can be seen on the Map below.

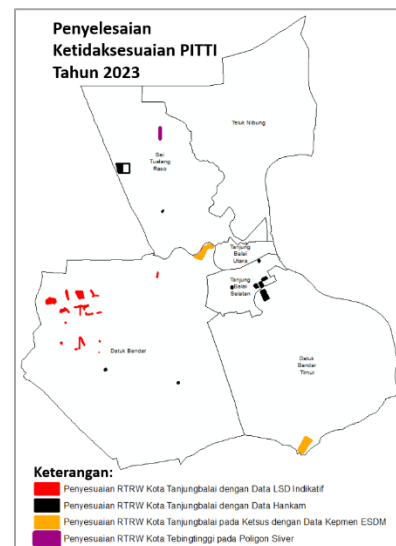


Figure 9. Map for Solving Spatial Mismatches in 2023 in Tanjungbalai City

V. CONCLUSION

The results of the study concluded several things, namely:

1. The geospatial data overlay technique combines various layers of data to analyze the spatial relationships between spatial elements, thus allowing the disclosure of empirical facts about spatial conditions. This method supports better decision-making in sustainable regional planning and spatial planning.
2. The regional boundaries in the Tanjungbalai City RTRW Ranperda are in accordance with the Minister of Home Affairs Regulation Number 78 of 2016 concerning the Regional Boundary of Asahan Regency with Tanjung Balai City, North Sumatra Province.
3. The results of the spatial suitability analysis in Tanjungbalai City showed that there was an overlap in spatial patterns that did not match an area of 29.98 hectares 0.50% of the area of Tanjungbalai City.
4. The discrepancy in the spatial pattern in the revision of the Tanjungbalai City RTRW occurred due to differences in the distribution of Protected Rice Land (LSD) data, differences in Defense and Security Area data, differences in mining area data, and sliver in the spatial pattern of the Tanjungbalai City RTRW revision.
5. The follow-up to the completion of the revision of the Tanjungbalai City RTRW was carried out with improvements that adjusted to the revision of the North Sumatra Province RTRW.

Suggestion

The suggestions from the results of the study are as follows:

1. In the process of legalizing the North Sumatra Provincial RTRW Ranperda, the Tanjungbalai City RTRW Ranperda will be very likely to change due to the need for space and other directions. If there is a change in the content of the spatial pattern in the Tanjungbalai City RTRW Ranperda, then it needs to be discussed/resynchronized.
2. In looking at the overlap of spatial patterns in the next update, it is also better to pay attention to the Zoning Directive Indication (IAZ) of the North Sumatra Province RTRW on the zones/activities that are allowed and allowed conditionally in the provincial spatial pattern.
3. It is recommended that the agreement in resolving the overlap of the spatial pattern plan can be stated in the Synchronization Minutes as evidence in the Approval process of the Substance of the spatial plan.

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