

## Optimization of regional long-term development plans (RPJPD): a scenario planning approach

Lestari Eko Wahyudi<sup>1\*</sup>, Laily Akbariah<sup>1</sup>, dan Durratun Nashihah<sup>1</sup>

<sup>1</sup>Departement of Public Administration, Faculty of Administrative Science, University of Brawijaya, Indonesia

\*Corresponding author's email: [lestarielow@ub.ac.id](mailto:lestarielow@ub.ac.id)

**Abstract.** The implementation of scenario planning approaches provides essential tools for local governments and stakeholders to manage uncertainty and risk, ensuring that development decisions are based on relevant and accurate information. This study aims to optimize the Regional Long-Term Development Plan (RPJPD) through a scenario planning approach. This approach allows for the formulation of multiple alternative scenarios that encompass various future conditions and the evaluation of their impacts on development goals. The study employs quantitative analysis with secondary data from the RPJPD of districts/cities in East Java Province. The findings indicated that although the RPJP and RPJPD documents are flexible and can change according to conditions, they still possess significant potential to enhance local planning capacity. This condition reflects variations in performance achievement among districts/cities in East Java, with Probolinggo Regency and Probolinggo City demonstrating the best performance, while Gresik Regency and Sampang Regency ranked the lowest. Time-series analysis revealed that performance achievements on several indicators remain low, particularly regarding access to improving quality of life. This study underscores the importance of continuous evaluation and adjustment of development plans to achieve desired outcomes. It is hoped that this study will contribute significantly to improving the quality of regional development planning documents and assist local governments in achieving established development goals.

**Keywords:** *Local Governance; Long-term Planning; Uncertainty Management*

### 1. Introduction

Regional development planning is a strategic initiative undertaken by the government with the aim of managing activities related to development, which are often influenced by external

factors such as regional financial aspects or the local economy. Economic factors are one of the significant aspects affecting the planning process at both central and regional levels [1]. Historically, the emergence of awareness regarding planning in the public sector, particularly in military and governmental systems, is closely related to the management of national affairs by the government involving state power [2]. This has become increasingly important given the rising demands for strategic thinking at the local government level, in line with achieving regional objectives that correspond to the political promises of local leaders.

In the context of Indonesia, development planning is a very important effort to achieve national goals as mandated by the Preamble of the 1945 Constitution, paragraph 4. The Preamble of the 1945 Constitution explicitly states that the goals of national development are to protect all Indonesian people and all Indonesian territory, promote the general welfare, educate the nation's life, and participate in maintaining world order based on independence, eternal peace, and social justice. The process of development planning becomes a very fundamental initial step to ensure the achievement of those goals. Development not only has short-term targets but also contains a long-term vision directed "by, for, and from the community" [3]. Furthermore, development planning plays a strategic role in creating national stability through effective resource management to prevent social conflicts, inequality, and political instability [4].

In accordance with the significance of development planning, the Indonesian government has issued regulations such as Law Number 25 of 2004 on the National Development Planning System and Law Number 2 of 2014 on Regional Government, which govern regional development planning. Planning documents such as RPJPD (Long-Term Development Plan), RPJMD (Medium-Term Development Plan), and RKPD (Regional Work Plan) serve as important foundations in the regional development process. The success of regional development planning can be assessed through the interconnection and synchronization of various planning documents in conjunction with applicable government regulations and laws [5].

Moreover, to measure the achievement of the vision and mission in the RPJPD document, indicators that have been identified alongside the formulation of the vision and mission are observed. The steps to achieve the indicator objectives for the vision and mission in the long-term development plan are based on four stages of medium-term development, each lasting five years. Therefore, a regional development plan is inherently linked to the management and evaluation processes used. This is because regional development plans can provide important information to stakeholders and development policymakers, helping them understand, improve, and decide on the best actions based on past experiences [6].

Consequently, it is important to adopt a scenario-planning approach when formulating the RPJPD. Scenario planning is a powerful approach to enhance awareness of significant future uncertainties [7]. This can certainly anticipate uncertainties that include future possibility analyses in the long-term RPJPD. Considering that the RPJPD is a mandatory planning document for all regional governments, long-term planning requires analytical tools that can

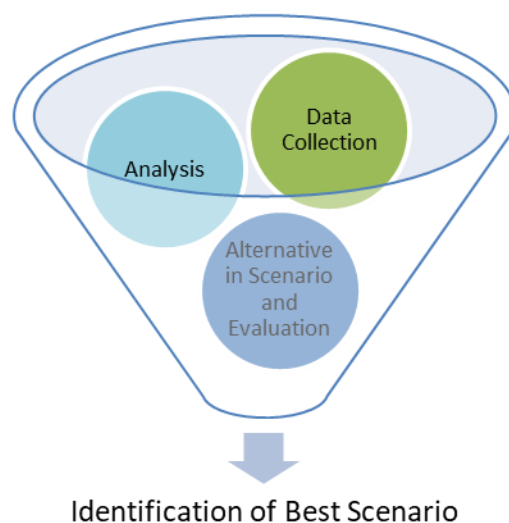
enhance the quality of the planning document. In scenario planning, the preparation of the RPJPD requires an assessment of the achievement level of the vision and mission based on the region's long-term plan.

The scenario approach is not directly related to what is most likely to happen, but rather to what should happen. That means this approach focuses on the possibilities that may occur in the future rather than on expectations of what should happen. In other words, the scenario planning approach serves as a tool for making better decisions at the local government level. This is conducted in accordance with Minister of Home Affairs Regulation Number 86 of 2017 concerning the procedures for planning, managing, and evaluating regional development and evaluating the draft regional regulations on long-term regional development. Evaluation and review of the development planning report are necessary to ensure optimal government performance [8]. Therefore, this study is conducted to provide important information to assist stakeholders and policymakers at the regional level in managing and reviewing the suitability of the RPJPD draft at the local level.

## **2. Methods**

This study employs a quantitative method with a scenario planning approach. The data was obtained from the Regional Long-Term Development Plan (RPJPD) of districts/cities in East Java Province over the past several years of RPJPD implementation. Scenario planning is a method for developing a development plan by forecasting various possibilities and variables that may occur in the future. This approach involves creating several alternative scenarios that encompass various conditions that may arise and evaluating the impacts of each scenario on the desired development objectives. In this way, the government and stakeholders can better prepare for uncertainties and risks associated with changes in social, economic, and political environments.

In this study, we utilize secondary data sources as the basis analysis. As previously mentioned, this secondary data refers to data obtained from documents related to the Regional Long-Term Development Plan (RPJPD) of East Java Province. The steps and data analysis used in scenario planning include systematic steps for collecting data, analyzing, and evaluating relevant data in the planning process, as presented in the following Figure 1.



**Figure 1.** Scenario planning approach flowchart.

Based on the scenario planning flow, as shown in Figure 1, the first stage involves data collection, specifically identifying issues related to the implementation of the RPJPD. This involves considering data related to the social, economic, political, and physical environments gathered from various sources such as surveys, literature, and secondary data. The second stage, analysis of the situation, involves analyzing the collected data to understand the current situation and existing trends, as well as identifying factors that may influence future developments. The third stage includes the development and evaluation of scenarios, where alternative scenarios representing different future developments are created.

These scenarios encompass various potential conditions, including risks, opportunities, and various combinations of both. Each scenario is then evaluated to understand its impacts and implications for the desired development objectives. This evaluation includes quantitative analysis to assess the success of each scenario in achieving the established goals. We analyze quantitative data from a cross-sectional longitudinal study. Finally, the fourth stage involves selecting the best scenario; based on the evaluation selection, the scenario categorized as most optimal is chosen to serve as the basis for subsequent planning.

### 3. Result and discussion

#### 3.1. Result

The scenario planning approach in the East Java Provincial Long-Term Development Plan (RPJPD) is conducted by comparing the results of the District/City Medium-Term Development Plans (RPJP) within East Java. In general, all 20 sampled Cities/Districts surveyed have gone through a series of processes for each RPJP document, referring to government guidelines outlined in the Minister of Home Affairs Regulation No. 86 of 2017 regarding the Procedures for Evaluating Regional Drafts for Long-Term Regional Development Plans, Medium-Term Regional Development Plans, and Regional Government Performance Plans.

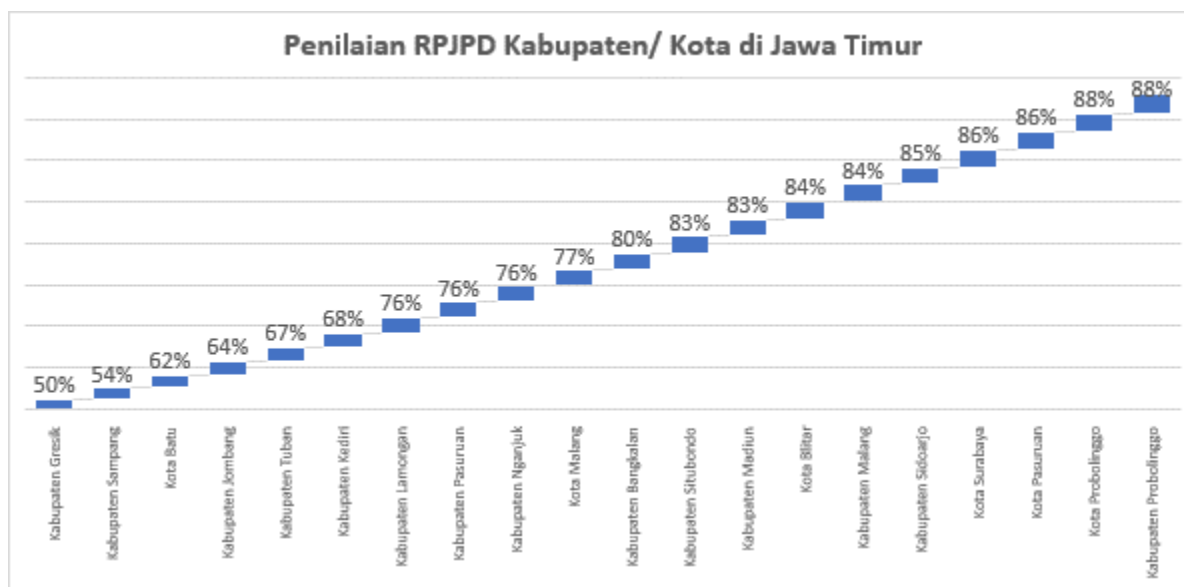
Planning documents are flexible in nature. Therefore, the planning formats among the various Districts/Cities can differ. Empirically, planning can change depending on circumstances related to the preparation and objectives of the planning process [9]. Nevertheless, the RPJP and RPJPD documents still hold significant potential to benefit cities and communities, even if the plans do not meet their missions or visions; one of which is the enhancement of local planning capacity. Meanwhile, the alignment of primary objectives in the development planning of East Java is carried out by comparing the development objectives of the RPJP of Districts/Cities in East Java from 2005 to 2025. Below is Table 1, which illustrates the level of achievement of performance targets based on the overall objectives of the RPJPD.

**Table 1.** Achievement level of RPJPD performance targets for East Java Province 2005-2025.

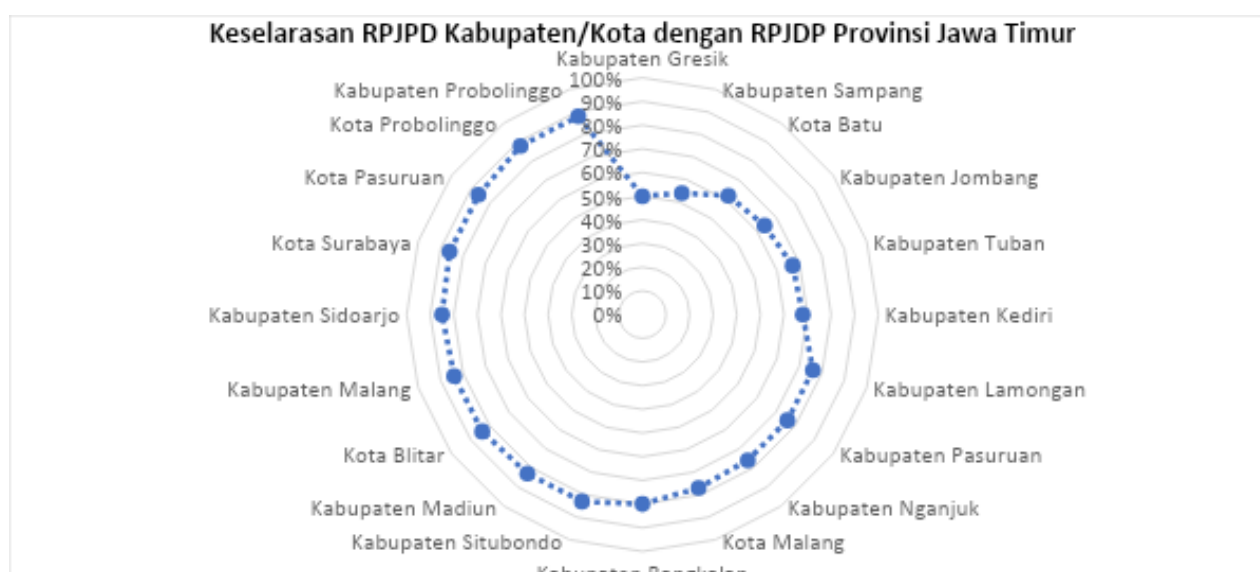
Target	Period- 2	Period 3 + 20 IKU + macro	Period 4 + 30 IKU	Deviation
1	91,68%	89,19%	75,00%	63,97%
2	90,99%	94,40%	99,72%	71,28%
3	91,69%	75,42%	56,54%	55,62%
4	94,80%	95,99%	98,97%	70,38%
5	89,42%	96,82%	94,69%	70,23%
6	90,00%	85,71%	93,95%	59,92%
7	92,59%	87,06%	69,92%	66,24%

As seen in Table 1, the lowest deviation value is found in target 3, at 55.62%. This condition indicates that the achievement level of the RPJPD performance in East Java concerning accessibility to improve quality of life remains relatively low, with an achievement percentage of 55.62%. Unfortunately, this achievement represents the lowest assessment of East Java's performance from 2005 to 2025. This is because, as shown in Table 1, there is a significant decline in each period. Conversely, in target 2, the highest deviation value is 71.28%. This indicates that the achievement level of the RPJPD in East Java regarding the realization of competent, morally upright, and cultured human resources has been progressing but still falls within the moderate category.

Further examination of the time-series data of the RPJPD from the Districts/Cities in East Java, as presented in the following Figure 2, shows the percentage of alignment of plans in each RPJPD from the Districts/Cities in East Java.



**Figure 2.** Assessment of RPJPD from districts/cities in East Java Province.



**Figure 3.** Alignment of RPJPD from districts/cities with the RPJDP of East Java Province

Figure 2 and 3 show that the highest performance assessment is achieved by Probolinggo District and Probolinggo City. This assessment refers to the Minister of Home Affairs Regulation (Permendagri No. 86 of 2017), which regulates planning procedures, control, and evaluation procedures for regional regulation drafts. The lowest assessment recorded is for Gresik District, which only received a score of 50%, followed by Sampang District with 54%. Additionally, regarding alignment, as shown in Figure 2 (b), Gresik District ranks lowest compared to several other Districts/Cities.

### *3.2. Discussion on findings*

In the first phase of the implementation of the Provincial Long-Term Development Plan (RPJPD) of East Java (2005-2009), the focus was on efforts to restore the existing status. The decline in economic growth capacity indicated the presence of unsustainable infrastructure in several regions, accompanied by a less-than-optimal functioning of the economic mechanisms. Therefore, the focus was on restoring regional facilities and infrastructure, as well as adding infrastructure to enhance the sustainability of economic performance. The economic mechanisms were restored through the revival of economic sectors, particularly agriculture and industry. Agricultural revitalization was pursued through increased agricultural production supported by enhanced environmental protection, especially in terms of providing raw water for agricultural activities.

This is in line with previous study, which state that industrial revitalization is carried out by strengthening industrial structures through encouraging collaboration between small and medium enterprises and large industries, as well as the establishment of industrial clusters [10]. From the government and institutional perspective, this was achieved by enhancing the performance of state government and, socially, by realizing the basic rights of local communities, particularly in the fields of education and compulsory schooling. Improvements in fulfilling the basic right to education were implemented in each region through the 12-year compulsory education program. Meanwhile, in the health sector, this was achieved by providing free medical access in hospitals for the poor and improving the quality of services in community health centers (Puskesmas).

In the second phase (2010-2014), the objective was to expand the capacity for production and distribution of agricultural products, which was expected to promote regional advancement and improve local welfare. This second phase focused more on optimizing and utilizing resources, including optimizing existing regional assets for the benefit of the agricultural industry through healthy economic mechanisms, integrated social systems, and law enforcement institutions [8]. In this phase, the development of East Java as an agricultural economic center concentrated on agricultural production centers and the processing industry of agricultural products, as well as the expansion of domestic and international markets.

This was carried out through the empowerment of farmers and rural institutions, the development of agricultural technology, and network efficiency. Positioning agriculture as a system will also change its impact on the proportion of agriculture's role in the economy. Furthermore, previous study confirmed that another impact of this relocation is the reallocation of economic resources that are crucial for developing the agricultural industry [10]. Meanwhile, the trade sector is expected to optimize the domestic market, regulate the distribution of goods, and enhance export orientation. Additionally, resource optimization is achieved by significantly increasing infrastructure capacity and implementing sustainable management systems.

Efforts to meet energy needs will be carried out by enhancing the potential for developing resources and utilizing renewable energy sources. Given that the energy demands of industry and households in East Java continue to rise while supplies are limited, the development of alternative energy has become an unavoidable necessity [11]. Therefore, it is evident in this second phase that various environmentally friendly, user-friendly, and cost-effective energy alternatives are increasingly being developed. This is further supported by strengthening and preparing human resources, primarily through the implementation of a mandatory 12-year education curriculum focused on vocational school development.

The development of the tourism sector aims to achieve tourism excellence through the development of unique and distinctive tourism products rooted in traditional cultural wealth, reflecting the diversity of local community identities, as well as natural and cultural richness. The performance of tourist attractions that utilize natural resource potential in a competitive, sustainable, and environmentally friendly manner is crucial. On the other hand, related to regional development, disparities between regions are reduced through the equitable distribution of economic services across all areas. This condition is marked by the development of transportation infrastructure that reaches underdeveloped areas [1]. Furthermore, urban area development can be better organized using regional development management tools that can accommodate the growth of megacity areas and harmonize relationships between large, medium, and small cities with existing rural areas. Additionally, development in governance and institutional fields aims to enhance local financial efficiency and effectiveness.

In the third phase (2015-2019), the focus shifted to strengthening regional progress and developing welfare. The attractive economic dynamics of the previous phase were reinforced by the expansion of the economic network not only at the national level but also internationally. This third phase is characterized by the increasingly dominant role of science and technology mastery, aimed at optimizing resource potential. The third phase of industrial development aims to create a comfortable and conducive business environment, develop innovation capacity, enhance industrial resource capacity, and strengthen manufacturing alongside the development of industrial cluster areas. Support is also extended to the MSME sector.

Moreover, trade development aims to enhance competitive advantages through the expansion of export trade areas, product distribution organization, strengthening domestic products, and developing the domestic market. If we look at the aspects of government sector development and resources undertaken to utilize wealth and assets to finance development, as well as encourage regions and communities to act as agents of regeneration, service, and community empowerment, this is achieved through advocacy and encouragement related to independence, strengthening, and improving the quality of public services. The organization of regional development is based on the increasing implementation of development according to spatial planning and improvements in spatial planning with a more stable control system. To achieve sustainable development, the management of natural resources and the



preservation of environmental functions is carried out through institutional strengthening and increased community awareness, which leads to the development of recovery and conservation processes for natural resources and the environment to generate added value, national competitiveness, and capital for future development.

#### 4. Conclusions

The first phase (2005-2009) focused on infrastructure rehabilitation and revitalization of the economic sector, particularly agriculture and industry. The second phase (2010-2014) emphasized improving productivity and distribution of agricultural products, as well as the development of the trade and tourism sectors. The third phase (2015-2019) aimed to strengthen development by focusing on economic competitiveness and the quality of human resources. Meanwhile, the fourth phase (2020-2024) is focused on strengthening markets and the quality of agricultural products, along with supporting infrastructure. All these stages demonstrate a continuous effort to enhance economic, social, and infrastructural development in East Java.

The results of this study also indicate that the scenario planning approach has become an effective tool in the design of the Long-Term Regional Development Plan (RPJPD). By considering various stages of sustainable development, the RPJPD can adapt more quickly to changes in the environment and the needs of the community. In this context, optimizing the scenario planning approach not only involves creating long-term development plans but also encompasses the ability to anticipate and respond to changes occurring during the planning period. Therefore, the continuity and sustainability of development can be better achieved, contributing positively to economic growth, social welfare, and environmental sustainability in East Java. By utilizing an optimal scenario planning approach, the RPJPD can be designed comprehensively, responsively to socio-economic dynamics, and sustainably to improve the welfare of the people in East Java.

#### References

- [1] Harrison J, Galland D, Tewdwr-Jones M. Regional Planning is Dead: Long Live Planning Regional Futures. *Plan. Reg. Futur.*, London: Routledge; 2021, p. 10–33.
- [2] Freedman L. *Strategy: A History*. New York: Oxford University Press; 2013.
- [3] Waryanti D. Evaluation of Development Planning in Riau Islands Province. *J Ilm Ilmu Adm Publik* 2022;12:297–310. <https://doi.org/10.26858/jiap.v12i2.36880>.
- [4] Badan Perencanaan Pembangunan Nasional. *Laporan Kinerja Kementerian PPN/Bappenas Tahun 2023*. Jakarta: 2023.
- [5] Pambudi AS. Evaluasi Kesesuaian RKP dan RKPD 34 Provinsi Terkait DAK Fisik Penugasan Bidang Lingkungan Hidup dan Kehutanan 2019. *Bappenas Work Pap* 2020;3:88–100.
- [6] Lukaszewicz A, Vella K, Mayere S, Baker D. Declining Trends in Plan Quality: A Longitudinal Evaluation of Regional Environmental Plans in Queensland, Australia. *Landsc Urban Plan* 2020;203. <https://doi.org/10.1016/j.landurbplan.2020.103891>.
- [7] Nieto-Romero M, Milcu A, Leventon J, Mikulcak F, Fischer J. The Role of Scenarios in Fostering Collective Action for Sustainable Development: Lessons from Central

- Romania. Land Use Policy 2016;50:156–68. <https://doi.org/10.1016/j.landusepol.2015.09.013>.
- [8] Afandia MN, Purwantob BH, Suryaningprangc A. Organising Medium Term Development Plan System Conceptual Model in the West Java Province. *Int J Innov Creat Chang* 2019;10:75–87.
- [9] Rider RW. Making Strategic Planning Work in Local Government. *Long Range Plann* 1983;16:73–81. [https://doi.org/10.1016/0024-6301\(83\)90033-X](https://doi.org/10.1016/0024-6301(83)90033-X).
- [10] Nasution MA, Achmad N. Model Evaluasi Perencanaan Pembangunan di Sumatera Utara. *JUPIIS J Pendidik Ilmu-Ilmu Sos* 2021;13:210–23. <https://doi.org/10.24114/jupiis.v13i1.23658>.
- [11] Mensah J. Sustainable Development: Meaning, History, Principles, Ppillars, and Implications for Human Action: Literature Review. *Cogent Soc Sci* 2019;5:1–21. <https://doi.org/10.1080/23311886.2019.1653531>.