

# **SWOT Analysis of Development Strategy Infrastructure in Optimizing Natural Resources in Tamansari Village**

**Ahmad Saef Alfath, Izzatun Aini Hall**

Universitas KH. Mukhtar Syafa'at, Indonesia

Email: ahmadaaefalfath28@gmail.com, aulaizatulaini28@gmail.com

\*Correspondence: ahmadaaefalfath28@gmail.com

**ABSTRACT:** This article aims to analyze the strategy for developing road infrastructure in Tamansari Village using the SWOT analysis approach, in order to formulate the right strategy to increase social and economic growth in the village through better infrastructure development. This study uses a descriptive qualitative method, because in an in-depth understanding of the village situation this method is useful for understanding phenomena in depth through analysis of conditions in the field. The object of this study, namely the development of Tamansari Village Road infrastructure using SWOT Analysis. The types and sources of data used in this study are primary and secondary data. The development of road infrastructure in Tamansari Village aims to improve the economy and quality of life of the community by optimizing the potential of village natural resources. Although the main road is good, some sections still need repair. The main challenges are limited budget and weather. Through SWOT analysis, strengths include community participation and government support, while weaknesses are limited budget and road maintenance problems. Opportunities include economic growth and tourism, while threats include policy changes and worker safety risks. Road infrastructure development in Tamansari Village has the potential to improve accessibility, quality of life, and sustainability of natural resources, as well as support the agriculture, tourism, and MSME sectors. The SWOT analysis shows weaknesses related to budget and human resources, but there are opportunities for economic growth. Suggested solutions include improving budget management, HR training, socialization, road maintenance, and safety risk mitigation.

**Keywords: SWOT analysis, infrastructure, natural resources**

## **INTRODUCTION**

Infrastructure is one of the key elements in driving the progress of a region, especially at the village level. Tamansari Village, located in Tegalsari District, Banyuwangi Regency, is one example of a village that already has various infrastructures that support the lives of its people. In this village, there are a number of important facilities such as bridges, irrigation systems, and adequate public buildings. However, one component of infrastructure that still needs to be improved is the road instrument. The condition of the road in Tamansari Village is still considered inadequate, thus hampering the mobility of residents and potentially reducing their quality of life (Shobirin & Ali, 2019).

The phenomenon of infrastructure lag between villages and cities is a common problem in many areas in Indonesia. This gap is often caused by minimal attention to the development

of basic infrastructure, which hinders social and economic growth in villages. Although various previous studies have discussed the use of SWOT analysis in infrastructure development in general, there are still shortcomings in the application of this method (Noor, 2018), specifically for road construction in villages that have abundant natural resource potential. Most studies tend to focus on urban areas or large projects, such as transmigration areas, so they pay less attention to the local context such as Tamansari Village, which has its own unique characteristics and challenges. In addition, there has not been much research that explicitly explores how SWOT analysis can be integrated to optimize natural resources as a support for road infrastructure development in this village (Iriyena, Naukoko, & Siwu, 2019).

The importance of good infrastructure, especially in rural areas, cannot be underestimated. Adequate infrastructure is the foundation of various sectors of life, from education, health, economy, to socio-culture (Burhanuddin, Ilman, AH, & Cita, 2020). Good infrastructure can open up new opportunities, accelerate economic growth, and reduce the gap between villages and cities. Without serious attention to infrastructure development, this gap will widen, which will have a negative impact on economic growth and the quality of life of rural communities (Endarwita, 2021).

Considering the phenomenon and importance of the infrastructure, the village government, under the leadership of Village Head Mr. Akbar Mukahfi, ST, has planned a road infrastructure improvement program in Tamansari Village. However, this program also faces challenges related to limited resources, both in terms of budget and technical capacity. Therefore, to ensure that the improvement of this road infrastructure runs effectively and sustainably, a comprehensive strategy is needed (Huddin, 2021).

This article aims to find out how the road infrastructure development strategy and analyze it through the SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis approach can be used to formulate a road infrastructure development strategy, especially in Tamansari Village. Through SWOT analysis, it is expected to identify the strengths, weaknesses, opportunities, and threats faced by the village in an effort to improve infrastructure conditions. This approach can also help formulate more targeted steps, which not only improve the quality of road infrastructure, but also supports accessibility to education, health services, and strengthens the local economy.

Through this study, it is expected to obtain a clear picture of the importance of village infrastructure development strategies and how SWOT analysis can be applied in village infrastructure development, especially in Tamansari Village. The results of this analysis are not only beneficial for the local community, but also become a reference for infrastructure development policies in other villages. Thus, this study contributes to efforts to optimize resources and sustainable equitable development. Sustainable Road Development is a concept of implementing/implementing sustainable construction in the field of road infrastructure that contains sustainable principles and is based on a balance of environmental, economic, and social aspects.

Tamansari Village, located in Tegalsari District, Banyuwangi Regency, is a vibrant community with immense potential for growth. Despite its natural wealth and agricultural productivity, the village faces a significant challenge in its road infrastructure. Roads serve as lifelines for rural areas, facilitating access to markets, public services, and education. Inadequate road conditions not only hinder mobility but also slow the progress of socio-economic activities. The ongoing effort to address these challenges underscores the critical role of infrastructure development in driving rural development and sustainability.

The unique characteristics of Tamansari Village make it an interesting case for infrastructure development strategies. While the main village road is relatively well-maintained, several segments, particularly in residential and agricultural areas, are in poor condition. These issues disrupt the daily lives of the residents and limit opportunities for economic expansion. Effective infrastructure development is needed to enhance connectivity, not just for local needs but also to integrate the village into larger economic networks.

Furthermore, rural infrastructure projects often face challenges such as limited budgets, unpredictable weather, and disputes within the community. These issues call for a strategic and well-planned approach to ensure the successful implementation of development programs. By prioritizing road construction and repair, Tamansari Village has an opportunity to unlock new avenues for growth, including the expansion of local businesses and tourism, which can significantly boost the local economy.

The strategic importance of road infrastructure extends beyond economic benefits. Improved roads directly impact residents' quality of life by providing better access to education and healthcare services. Moreover, by optimizing the use of natural resources through enhanced accessibility, the village can create a foundation for sustainable development. Therefore, understanding the strengths, weaknesses, opportunities, and threats in this context is crucial for formulating an effective development strategy.

The urgency to develop road infrastructure in Tamansari Village lies in its critical role in bridging the gap between rural and urban areas. Without immediate intervention, the economic and social disparities between these regions will continue to grow. Improved infrastructure is essential for facilitating access to education, healthcare, and markets, which are vital for the overall well-being and prosperity of the community. Addressing this issue now ensures that the village can capitalize on its natural resource potential and avoid further marginalization.

A study by Shobirin and Ali (2019) highlights the importance of infrastructure in boosting regional connectivity and service efficiency. Their research on Soekarno-Hatta International Airport emphasized that strategic infrastructure improvements are pivotal in supporting economic activities. Similarly, the insights from their study can be adapted to Tamansari Village's rural context, focusing on road infrastructure as a catalyst for growth.

This research presents a novel approach by integrating SWOT analysis specifically tailored for rural infrastructure development with a focus on optimizing natural resources. Unlike previous studies that primarily concentrate on urban infrastructure or large-scale projects, this study addresses the unique challenges and opportunities of a village setting. By combining insights from community participation, government support, and sustainable practices, the study provides a comprehensive strategy for road infrastructure improvement in rural contexts.

The primary objective of this study is to formulate a sustainable development strategy for Tamansari Village's road infrastructure using the SWOT analysis framework. The proposed strategy aims to enhance connectivity, economic growth, and quality of life for the community. The benefits include increased access to markets and public services, a boost to local industries and tourism, and a foundation for long-term sustainable development. By addressing existing challenges and leveraging opportunities, the study seeks to provide actionable insights for policymakers and stakeholders in rural development initiatives.

## **RESEARCH METHODOLOGY**

This study uses a descriptive qualitative method, because in a deep understanding of the village situation this method is useful for understanding the phenomenon in depth through analysis of conditions in the field. The object of this study, namely the development of Tamansari Village Road infrastructure using SWOT Analysis. The types and sources of data used in this study are primary and secondary data. Primary data was obtained from direct interviews with Mr. Khoirul Anam, S.Ag as the village secretary, Mr. Jalu as the Head of the Implementation Team and Mrs. Elizabet as a local resident and observation. While secondary data was obtained from information or results of research, reference books, mass media, the internet and so on that support the problems being studied.

## **RESULT AND DISCUSSION**

The development of road infrastructure in Tamansari Village aims to optimize the potential of the village's Natural Resources (SDA), improve the economy, and improve the quality of life of the community. Tamansari Village has various SDA potentials, such as village-owned land that can be utilized to improve the welfare of residents. In this case, the Village Secretary emphasized the importance of improving road access to agricultural areas and MSMEs so that local products can be sold at more competitive prices and their distribution becomes smoother and facilitates the mobility of independent small entrepreneurs. Although the main village road is quite good, several road sections, especially in the central residential areas, still need repair. This repair plan involves the use of a budget from the Village Budget and assistance funds from the central government.

In addition, the Head of the Activity Management Team stated that the team is responsible for planning and implementing road construction, with a primary focus on roads connecting areas that are especially the main centers of citizen mobility. However, the biggest challenges faced are limited budget and weather conditions that can hinder work, but solutions such as collaborating with third parties have begun to be implemented.

For local residents, good roads are an urgent need to access markets, public services, health, education and transport agricultural products. According to them, narrow and damaged roads, especially during the rainy season, often hamper their economic activities. Therefore, they hope that the roads leading to the gardens and markets and others will be repaired with better quality and widened so that vehicles, including those transporting agricultural products, can pass more smoothly. With the repair of the road, they are sure that the village economy will increase because their products can be sold more easily.

In general, the development of road infrastructure in Tamansari Village has a vision to improve accessibility, connect agricultural areas with markets and consumers with entrepreneurs, and support sustainable management of natural resources. Collaboration between the village government, activity management team, and the community is very important in ensuring the sustainability and success of this project. Road development must also pay attention to environmental impacts, by prioritizing the principles of environmentally friendly and sustainable development. Good road construction will not only support the distribution of agricultural products, but also open up opportunities for the tourism sector, which can contribute to improving the village economy.

The following are the results of internal factors (strength-weakness) and external (opportunity-threat) using SWOT analysis taken from the interview results:

**Strength - as follows:**

1. The advantage of road infrastructure development is that there is helpful community participation and ongoing funding sources, including the existence of Village Cash Land (TKD).
2. The quality of materials and technology used in the project is good
3. There is government support or regulations/rule systems that strengthen the implementation of this road construction .
4. The ability of the project implementation team to complete work on time and within budget
5. The construction of this road will significantly increase accessibility and mobility/movement of people.

**Weakness - the following weaknesses:**

1. The obstacles faced in the construction of this road are factors such as insufficient budget and human resources, both in terms of quantity and capability.
2. Delays or difficulties in the construction process usually occur due to poor weather conditions and system errors in budget disbursement.
3. There is no preparation for road maintenance after completion, because sometimes the public's attitude is less concerned about damaged roads.
4. Sometimes there are disputes from the community regarding road expansion that are not approved.
5. There is a small part of the community who feel they are not benefiting from the construction of the road, because they have lost a small part of their house.

**Opportunities - opportunities as follows:**

1. D can open up opportunities for economic growth in the region , because if traffic is good, people's welfare will automatically increase, and facilitate their activities because sometimes economic opportunities can be hampered by poor road infrastructure.
2. Can attract investment or business development in the surrounding area
3. It has the potential to increase tourism or local industry because tourists and industry players are facilitated in road arrangements.
4. There are government programs such as ADD

**Threats – threats as follows:**

1. There is a possibility of policy changes that could affect this project in the future in terms of budget because the budget that comes out must go through prior deliberation.
2. The risk to worker safety and security at construction sites is caused by the absence of insurance programs such as BPJS on large projects.

Based on the results of the SWOT analysis to develop a strategy for optimizing natural resources in the construction of Tamansari village roads from the vision and mission of Tamansari Village. The results of the SWOT matrix analysis are as follows:

**Matrix Image**

**Category      Strengths      Weakness      Opportunity      Threat**

1. Community participation, ongoing funding sources and the existence of TKD      Budget and human resource constraints      Regional economic growth through good infrastructure      Policy changes that affect the budget
2. Good quality materials and technology      Delays in the construction process      Attracting investment and business development in the region      Worker safety and security risks
3. Government support and supportive regulations      Lack of road maintenance after completion      Boosting tourism and local industry

4. Competent project implementation team Community dispute over road expansion Government programs such as ADD
5. Improving accessibility and mobility of the community The community feels disadvantaged

### **Discussion**

This study highlights the importance of developing road infrastructure in Tamansari Village as a strategic step to utilize the potential of village Natural Resources (SDA), improve the quality of life of the community, and improve the village economy as a whole. These findings indicate that good road infrastructure is not only a means of mobility, but also plays a key role in maximizing the potential of village SDA which has not been optimal so far (Abubakar, 2024).

Road development in Tamansari Village has a very strategic purpose, namely connecting agricultural areas with markets and supporting the MSME sector. As emphasized by the Village Secretary, improving road access, especially to agricultural areas and MSMEs, will increase the competitiveness of local products that can be sold at more competitive prices (Bharadwaj, El Sawy, Pavlou, & Venkatraman, 2020). This is in line with the theory of economic development which states that better accessibility will accelerate the flow of goods and services, which in turn increases the economic activity of the community. Therefore, road development in Tamansari Village is not only about improving infrastructure, but also about opening up greater economic opportunities for the village community (Porter, 1993).

In addition, the findings that show that the main village roads are quite good but there are still several road sections that need repair, especially in border areas, reflect the challenges in evenly distributing infrastructure development. However, the plan to use the budget from the Village Budget and assistance funds from the central government shows that there are concrete efforts to address this challenge. This is an important indicator that the village government is actively trying to maximize the financial potential available for inclusive development (Murti & Maya, 2021).

The main challenges faced in road construction are limited budget and unfavorable weather conditions. Limited budget is a common obstacle in many areas that still depend on funding allocations from the central and regional governments. However, the solution offered by the Head of the Activity Management Team, namely collaborating with a third party, provides hope that road construction can still be carried out even with limited resources. Collaboration with a third party is an example of how limited resources can be managed well to achieve greater development goals (Wahyuningsih, 2012).

For local communities, good roads are an urgent need, especially for market access and distribution of agricultural products. This finding reflects the real needs of the community who feel hampered by narrow and damaged road conditions, especially during the rainy season (Zulfan, Safwadi, Yuliana, Ibrahim, & Astini, 2022). Their desire for the roads leading to the gardens and markets to be repaired and widened shows that road infrastructure is a key element in facilitating their economic activities. With the repair of the road, they are confident that their agricultural products will be easier to sell, even at a higher price because the distribution is smoother and more efficient (Rompas, Lobja, & Rifani, 2023).

The development of efficient roads will open wider market opportunities for local products. This can also increase the competitiveness of local products in larger markets, and in turn improve the welfare of rural communities. These findings indicate that road infrastructure not only supports better economic activities, but also has the potential to create

new opportunities, including in the tourism sector, which can provide additional income for local communities (KUNCORO, 2023).

Based on the results of the SWOT analysis conducted on the development of road infrastructure in Tamansari Village, various strategies can be formulated using the SO (Strength-Opportunity), WO (Weakness-Opportunity), ST (Strength-Threat), and WT (Weakness-Threat) approaches to maximize the success of road construction and optimization of Natural Resources (SDA).

SO (Utilizing Strengths to Take Advantage of Opportunities) strategy focuses on using existing strengths to seize emerging opportunities. In this case, the existence of Village Treasury Land (TKD) and community participation can be utilized to support road construction projects connecting the village's main commodity producing areas with the market. By improving road infrastructure, it is expected that community accessibility and mobility will increase significantly, which in turn will accelerate regional economic growth. In addition, government support and development programs such as ADD (Village Fund Allocation) can be used to support the implementation of this project. The good quality of materials and technology in this project can also be used to increase the village's attractiveness to investors and encourage the growth of local industry and tourism (Indrajaya, Rusida, & Baharuddin, 2022).

The WO (Overcoming Weaknesses by Utilizing Opportunities) strategy focuses on how to overcome internal weaknesses by utilizing external opportunities. One of the main weaknesses faced is budget constraints and limited human resources in road construction projects. To overcome this, villages can take advantage of existing opportunities such as government programs that can support infrastructure development through ADD funds. In addition, cooperation with the private sector through Corporate Social Responsibility (CSR) or other sources of funding can help overcome budget shortfalls and increase human resource capacity. Training or education for local communities can also be carried out to improve their skills in participating in road construction and maintenance. In addition, difficulties in the construction process caused by bad weather can be overcome by carrying out more mature planning, such as more flexible scheduling and arranging construction methods that are more resistant to extreme weather.

The ST (Leveraging Strengths to Overcome Threats) strategy is used to utilize existing strengths to overcome potential external threats. One of the threats faced is policy changes that can affect the budget and progress of the construction project. Here, government support and existing regulations can be utilized to ensure the continuity of funding and smooth running of the project despite policy changes. The ability of the implementation team to complete work on time and within budget can also be used to ensure that the project continues to run smoothly despite challenges. In addition, potential safety risks to workers at the construction site can be reduced by ensuring the implementation of strict safety procedures and providing insurance or protection for workers, so that the project continues to run safely and efficiently.

The WT (Overcoming Weaknesses to Avoid Threats) strategy focuses on how to overcome internal weaknesses to avoid existing threats. One of the weaknesses that must be overcome is the delay in budget disbursement and the lack of road maintenance after completion. To avoid threats in the form of policy changes that can affect the project budget or road maintenance, villages can seek alternative funding sources such as CSR or cooperation with other institutions to finance road maintenance on an ongoing basis. The village can also explore the potential for maintenance from the community by educating them so that they

care more about road conditions. Land disputes related to road expansion are also a challenge that must be overcome with a transparent approach and involve all parties to reach a mutually beneficial agreement, reduce the risk of conflict and ensure that the road project can run smoothly.

## **CONCLUSION**

The development of road infrastructure in Tamansari Village has significant potential to enhance accessibility, improve quality of life, and support sustainable natural resource management. This project is anticipated to boost agricultural productivity and create opportunities in tourism and micro, small, and medium enterprises (MSMEs), positively impacting the village economy. However, a SWOT analysis reveals challenges, including budget constraints, human resource limitations, and potential community disputes, alongside opportunities for economic growth and investment. To address these issues, it is crucial to improve budget management by exploring alternative funding sources, conduct training programs for local workers, enhance community outreach to explain the benefits of the project, establish a road maintenance program involving community participation, and implement safety measures to mitigate risks during construction. By focusing on these strategies, the road construction project can operate more effectively and maximize benefits for the residents of Tamansari Village.



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