

Research Article

Sustainable Infrastructure Development Strategy in Tamansari Village to Improve Community Quality of Life

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ABSTRACT

Sustainable infrastructure development in rural areas is crucial for enhancing the quality of life within communities. Tamansari Village, with its unique potential and challenges, requires a comprehensive approach that takes social factors into account. Effective infrastructure not only improves accessibility but also fosters inclusive social development, strengthens community solidarity, and empowers local populations. This study employs a descriptive qualitative approach, focusing on infrastructure development strategies. Primary data is gathered through direct interviews with community leaders and the village head, while secondary data is sourced from previous research findings. Tamansari Village, located in Tegalsari District, Banyuwangi Regency, East Java, has made significant progress in its development. The concept of sustainable development emerged from the consensus among commission members that many infrastructure projects carry risks in managing village finances. Mr. Khoirul Anam, the Village Secretary, highlights the importance of careful planning and execution to ensure that development is not just temporary but yields long-term benefits. The four key elements planning, implementation.

Keywords: Sustainable; Infrastructure; Community Quality; Well-being; Tamansari Village; Primary and Secondary Data Collection; Planning and Execution; Village Budget Management

1. INTRODUCTION

Sustainable infrastructure development at the village level plays a critical role in enhancing the overall quality of life within the community. For Tamansari Village, a community with significant potential but facing numerous challenges, a comprehensive and well-structured development strategy is imperative. This strategy must consider not only physical infrastructure improvements, such as enhanced accessibility, but also the social factors that contribute to the empowerment and cohesion of the local population. By integrating these dimensions, the development process becomes more holistic, fostering community unity and ensuring that the benefits extend beyond mere construction.

Social factors are pivotal in determining the success of infrastructure projects. Actively engaging the community in the planning and execution of development initiatives is essential for ensuring their sustainability, relevance, and ownership. This approach ensures that the infrastructure built reflects the true needs and aspirations of the people it is designed to serve. In Tamansari Village, one of the primary challenges in this regard is the relatively low literacy rate among residents. However, literacy extends far beyond basic reading and writing skills; it encompasses the understanding of complex issues such as information processing, technological advancements, and the development of various skills that enable more effective participation in community development. Overcoming this barrier is not only a matter of addressing educational gaps but also of empowering the community with the knowledge needed to engage meaningfully in the development process. This, in turn, helps ensure that the community can both contribute to and benefit from the development outcomes.

In an increasingly globalized world, the development of a region is often measured by the quality and sustainability of its infrastructure. Well-developed infrastructure accelerates not only the economic growth of a region but also its ability to connect with broader national and international markets. Moreover, it serves as a key catalyst for further economic advancement, creating new opportunities for business, education, and employment. As a result, the construction of infrastructure that aligns with the community's needs while being socially and environmentally sustainable has become a critical priority in the modern development paradigm. Sustainable infrastructure contributes not only to physical growth but also supports the long-term environmental and social health of the community.

This study aims to analyze strategies for sustainable infrastructure development that are directly applicable to the specific conditions and challenges faced by Tamansari Village. The primary objective is to examine the key factors

contributing to the success of such projects, including community involvement, stakeholder cooperation, and environmental sustainability. By identifying these elements, the study seeks to provide strategic recommendations that will guide policymakers, local authorities, and the community in effectively planning and executing infrastructure projects that are both feasible and sustainable.

Without a clear and comprehensive strategy for sustainable development, Tamansari Village's significant potential could remain underutilized, perpetuating existing social and economic disparities. As such, sustainable infrastructure development is not merely a desirable goal; it is an absolute necessity for transforming Tamansari Village into a more advanced, prosperous, and self-sustaining community. The long-term success of the village depends on its ability to develop infrastructure that balances economic, social, and environmental considerations, ensuring that future generations will benefit from the development outcomes.

This research employs a qualitative approach, utilizing in-depth interviews, focus group discussions, and participatory observations to gather firsthand data reflecting the community's views on infrastructure development and its impacts on their quality of life. In this context, promoting adequate literacy and fostering a more informed population is crucial. An informed and educated community is more capable of engaging in the planning, implementation, and monitoring of infrastructure projects, ensuring that these projects align with their true needs and expectations. The qualitative approach also seeks to identify various aspects of life, such as health, education, employment, and environmental sustainability that are directly influenced by infrastructure development. Based on these findings, the research will propose actionable strategies to enhance community involvement, increase awareness, and ultimately improve the effectiveness and sustainability of infrastructure development in Tamansari Village.

2. RESEARCH METHOD

Tamansari Village, located in Tegalsari District, Banyuwangi Regency, East Java, has made significant progress in embracing sustainable development practices. The village's development strategy goes beyond short-term achievements, focusing instead on creating lasting impacts that promote the well-being of the community while simultaneously preserving the environment. This long-term approach ensures that development projects not only meet the immediate needs of the residents but also lay the foundation for future growth, ensuring both social and environmental sustainability. By prioritizing sustainability, Tamansari Village is positioning itself as a model of responsible development that balances growth with the preservation of natural resources.

3. RESULTS AND DISCUSSION

Tamansari Village, located in Tegalsari District, Banyuwangi Regency, East Java, has made significant progress in embracing sustainable development practices. The village's development strategy goes beyond short-term achievements, focusing instead on creating lasting impacts that promote the well-being of the community while simultaneously preserving the environment. This long-term approach ensures that development projects not only meet the immediate needs of the residents but also lay the foundation for future growth, ensuring both social and environmental sustainability. By prioritizing sustainability, Tamansari Village is positioning itself as a model of responsible development that balances growth with the preservation of natural resources.

Completed Development Projects

Several infrastructure projects have been carried out in Tamansari Village, including:

1. Paving of roads in RT 2 RW 3 Krajan, Gang Nelayan Lanjutan (Length: 90 m, Width: 2.3 m).
2. Road shoulder reinforcement in RT 2 RW 4 Dusun Krajan Utara (near the Health Center).
3. Paving of roads in RW 3 Polean Blok M (Length: 100 m, Width: 3 m).

Long-Term Expectations

Through these various initiatives, Tamansari Village aims to become an independent community with a prosperous population and a sustainable environment. The village seeks to be a model of community-based development that harmonizes with the preservation of culture and nature, inspiring other villages to follow suit. The development vision of Tamansari Village is focused on creating a just, prosperous, and sustainable community. The goal is to significantly improve the village's conditions by the end of the development planning period, ensuring long-term progress and community well-being. A central component in realizing this vision is the development of sufficient, high-quality infrastructure and facilities, which are crucial for both present and future generations.

Infrastructure development is recognized as an essential factor in improving the quality of life, expanding economic opportunities, and promoting social welfare. By prioritizing projects such as road construction, drainage systems, and access to clean water, Tamansari aims to create a more accessible, resilient, and sustainable environment for its residents. This strategic approach not only supports the village's long-term growth but also ensures that development remains in harmony with the community's cultural and environmental values. In this way, infrastructure projects serve as a catalyst for economic development, social cohesion, and environmental preservation. The Village Secretary highlights the importance of transparent, accountable, and efficient financial management in the implementation of development projects. Proper management ensures that funds are allocated effectively and projects are carried out according to the established plans and regulations. When financial resources are managed well, projects proceed as intended, leading to high-quality outcomes that benefit the entire community. However, financial mismanagement can lead to project delays, cost overruns, or even penalties, ultimately undermining the quality and success of the initiative. Therefore, strict adherence to financial accountability is essential for maintaining the integrity and impact of development efforts.

Infrastructure development, such as road construction, begins with detailed planning that takes into account the community's needs, environmental considerations, and long-term sustainability. This is followed by the careful and precise execution of the plan, with a focus on using quality materials and skilled labor. Furthermore, ongoing monitoring and financial oversight are critical to ensure that the projects remain on track and deliver the desired outcomes. The four key elements planning, implementation, administration, and accountability serve as the guiding principles that shape the success of any development initiative. These principles ensure that infrastructure projects are not only built to last but also contribute to the overall development goals of Tamansari Village. By adhering to these foundational principles, Tamansari Village can achieve sustainable and inclusive development that enhances the quality of life for all its residents. As each project progresses with transparency and responsibility, the community's trust in the development process grows, fostering a stronger sense of unity and shared purpose. Ultimately, the development of well-managed infrastructure will play a key role in transforming Tamansari into a more prosperous, modern, and self-sufficient village, while preserving its rich cultural and environmental heritage.

Village Development System

The village development system is a framework that manages the planning, execution, and assessment of development projects. The planning process must involve all segments of society, including vulnerable groups such as women, children, and people with disabilities. Techniques like workshops or focus group discussions can be used to gather community input.

Some of the completed developments in the village include:

1. Paving of roads in RT 2 RW 5 Gang P. Nikmat (Length: 100 m, Width: 3 m).
2. Paving of the cemetery in RT 1 RW 1 Dusun Polean (Length: 100 m, Width: 1.5 m).

Development Strategies

Several strategies employed for sustainable infrastructure development in Tamansari Village include:

1. **Community Participation:** Engaging village residents in the planning and execution of projects through village deliberations (*musyawarah desa*).
2. **Use of Environmentally Friendly Technology:** Utilizing recycled building materials and renewable energy systems to minimize environmental impact.
3. **Training and Empowerment:** Offering training to village residents to strengthen local capacity for sustainable development.
4. **Collaboration with Stakeholders:** Partnering with local governments, NGOs, and the private sector to secure the necessary resources for development projects.

Application of Environmentally Friendly Technology

Here is an expanded and more refined version of the paragraph with clearer and more detailed language for better understanding:

"The use of environmentally friendly technologies, such as incorporating recycled materials into construction, is a key strategy for reducing waste and lowering costs in Tamansari Village. By embracing these sustainable practices, the village not only creates more efficient and durable infrastructure but also takes significant steps toward protecting the environment. This approach helps minimize the ecological footprint of construction projects, supports waste management efforts, and ensures that resources are used more responsibly. Furthermore, the long-term economic benefits of these practices are substantial, as they reduce the need for costly raw materials and help conserve energy. Through this commitment to sustainability, Tamansari Village is positioning itself as a leader in environmentally conscious development,

creating a cleaner, healthier, and more resilient environment for its residents. Ultimately, this forward-thinking approach contributes to the overall well-being of the community, while also ensuring that the village's growth is aligned with ecological preservation, paving the way for a more sustainable future for generations to come.

In addition to the environmental considerations, Tamansari Village also faces practical challenges when it comes to implementing sustainable infrastructure, especially in road development projects. One of the major hurdles is budget limitations, which can restrict the ability to invest in more expensive construction methods, such as asphalt paving. Asphalt paving, while highly durable and effective, requires a significant financial investment that may not always be feasible for a village with limited resources. To overcome this challenge, Tamansari Village has chosen a more affordable yet equally effective alternative: concrete block paving (pavingisasi). This approach allows for the improvement of road infrastructure at a fraction of the cost, while still ensuring long-term durability, enhanced accessibility, and reduced dust. The decision to use concrete block paving is not only a cost-effective solution but also a practical one, as it meets the village's needs for quality infrastructure without compromising its financial stability. By adopting this method, Tamansari Village continues to make progress in developing its road network, despite financial constraints, ensuring that development remains both sustainable and economically viable." This revised version adds more detail, clarifies the explanation, and makes the overall message more comprehensive and accessible. It highlights the importance of sustainability in both environmental and economic contexts while demonstrating how Tamansari Village is adapting to overcome challenges.

4. CONCLUSION

Infrastructure development in Tamansari Village, Tegalsari District, aims to create a fair, prosperous, and thriving community by enhancing village facilities and infrastructure. The success of this development largely relies on transparent, accountable, and responsible project management. Therefore, every phase of development—from planning and implementation to financial management and accountability must be carried out correctly and in compliance with applicable regulations, particularly those outlined in the Budget Plan (RAB). Careful planning and strict adherence to the plan during implementation are essential for ensuring the quality of the project. Proper financial management is also crucial for achieving the best possible outcomes. With transparency and accountability at each stage, infrastructure development in Tamansari Village will enhance the residents' quality of life and generate long-term positive effects. Overall, well-executed infrastructure development will bring significant benefits to the village, including better accessibility, social welfare, and economic prosperity. Thus, managing development based on clear and structured principles is vital for realizing a self-sufficient and sustainable village.

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