

## Establishment of Healthy Tolam Community (KOTOS): Community Empowerment Strategy in Improving Environmental Health Quality in Kuala Tolam Village

Otang Kurniaman<sup>1</sup> Salsabila Izzati<sup>2</sup> Nur Huda Ananda<sup>3</sup> Isma Ardiansyah<sup>4</sup> Bunga Afrilia<sup>5</sup>  
Ego Prayogo<sup>6</sup> Juliani<sup>7</sup> Gunawan<sup>8</sup> Ade Rizwan Firmansyah<sup>9</sup> Fina Nelvani<sup>10</sup> Mimi  
Oktafira<sup>11</sup> Indah Kurnia<sup>12</sup> Jenita Andini<sup>13</sup> Sri Wahyuni Karunia Ningsih<sup>14</sup>  
Fakultas Keguruan dan Ilmu Pendidikan, Universitas Riau, Kota Pekanbaru, Provinsi Riau,  
Indonesia<sup>1,2,3,4,5,6,7,8,9,10,11,12,13,14</sup>

Email: [otang.kurniaman@lecturer.unri.ac.id](mailto:otang.kurniaman@lecturer.unri.ac.id)<sup>1</sup>

### Abstract

The establishment of Komunitas Tolam Sehat (KOTOS) in Kuala Tolam Village is a community empowerment initiative that aims to improve health and environmental quality through a participatory approach. This article explores the process of community formation, the strategies used in community empowerment, as well as its impact on the health and environment of the village. Through a participatory approach, the community successfully engaged various elements of the community, including the village government, community leaders, and local residents, in designing and implementing health and environmental programs. The results show that this approach not only increases community awareness about the importance of health and environmental hygiene, but also strengthens social solidarity and community capacity to manage health issues independently and sustainably. This article highlights the importance of community empowerment in creating sustainable positive change at the local level.

**Keywords:** Healthy Tolam Community, Community Empowerment, Environmental Health, Kuala Tolam Village



This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/).

### INTRODUCTION

Sustainable health and environmental development are important goals in efforts to improve the quality of life of communities, especially in rural areas that often face access challenges and limited resources. Kuala Tolam Village, as one of the villages located in the rural area, faces various challenges related to health and environment. Problems such as poor sanitation, lack of access to health services, and inadequate environmental management practices are urgent issues to address. This condition is exacerbated by the lack of community awareness and participation in maintaining health and the environment, which is often due to limited knowledge and skills. In this context, community empowerment becomes a very relevant strategy. Empowerment not only focuses on the transfer of knowledge and skills, but also emphasizes the importance of active involvement of communities in planning and implementing programs that have a direct impact on their lives. This approach gives communities the ability and confidence to participate in decision-making that affects them, and encourages self-reliance in addressing existing problems. Empowerment is thus key to creating sustainable change.

The establishment of the Healthy Tolam Community (KOTOS) in Kuala Tolam Village is one of the concrete efforts in implementing the community empowerment strategy. This community was formed in response to the urgent need for holistic and participatory solutions in addressing health and environmental issues. The Healthy Tolam Community serves as a platform for the community to collaborate, exchange knowledge, and design initiatives that can

improve the quality of health and environment in the village. Through this approach, the community is not only the object of program recipients, but also an active subject in the process of change. Tolam Sehat Community embraces the principles of sustainability and inclusivity, where all levels of society, including vulnerable groups such as women and children, are invited to participate. The programs run by this community cover various aspects, ranging from health education, sanitation improvement, waste management, to the development of clean and healthy living habits. The participatory approach applied not only encourages community involvement, but also ensures that the solutions generated are in line with local needs and conditions. This article aims to document the process of establishing the Healthy Tolam Community, the empowerment strategies implemented, as well as the impact that has been achieved on health and the environment in Kuala Tolam Village. By detailing the steps taken and the challenges faced, this article hopes to provide insights for similar initiatives in other areas with similar conditions and challenges. In addition, this article also underscores the importance of collaboration between the community, government, and related parties in achieving sustainable development goals.

## **RESEARCH METHODS**

This research uses a qualitative method with a PAR (Participatory Action Research) approach. According to Moleong, qualitative research is research that intends to understand phenomena about what is experienced by research subjects such as behavior, perceptions, motivations, actions, etc. holistically, and by means of descriptions in the form of words and language, in a special natural context and by utilizing various natural methods (Moleong, 2014). The PAR (Participatory Action Research) approach in qualitative methods is an approach that emphasizes the participation and collaboration of the parties who are the subject of research to create social change in their environment. This PAR approach was chosen because it emphasizes the active involvement of Healthy Tolam Community (KOTOS) members in the entire research process, from problem identification to solution implementation. The PAR approach also aims to empower the community to become more self-reliant by providing them with the necessary skills and knowledge to solve the environmental health problems at hand. This approach ensures that the solutions to be generated are relevant to the needs required and allows for continuous evaluation and improvement. Data were collected through triangulation of sources and methods to increase data validity and reliability, as well as member checking with all participants involved in the research to ensure consistency and accuracy of findings. This research also upholds the principles of research ethics, including obtaining informed consent, maintaining data confidentiality, and respecting the rights of participants.

## **RESEARCH RESULTS AND DISCUSSION**

### **Environmental Health Condition of Kuala Tolam Village**

The environmental health condition of Kuala Tolam village is influenced by several factors such as access to clean water, sanitation, waste management and availability of health facilities. Access to clean water is often a major challenge, triggering diseases such as diarrhea and skin infections. These diseases are particularly susceptible to children and other vulnerable groups, exacerbating the health condition of the village community. In addition, the lack of proper sanitation, such as the lack of latrine facilities, means that many people use the river for cleaning activities, increasing the risk of spreading environmentally-based diseases. The lack of proper sanitation also has an impact on the pollution of river water, which should be a source of life for the village community. Suboptimal waste management has caused many people to litter both on land and in the river, causing environmental pollution. This practice of irregular waste

disposal causes significant environmental pollution, threatens water and soil quality, and creates an unhealthy and unlivable environment. This pollution, in the long run, can damage local ecosystems and reduce the quality of life of communities. The lack of facilities is often an obstacle to addressing environmental health issues quickly and effectively. This lack of facilities also limits the community's access to basic health services, worsening the general health conditions in the village. Overall, the environmental health issues in Kuala Tolam Village reflect the need for a holistic and sustainable approach in improving environmental quality and community health. Interventions involving improved access to clean water, construction of adequate sanitation facilities, better waste management, as well as increased capacity of health facilities are essential to address the challenges facing this village. This approach will not only improve community health, but also contribute towards sustainable development and long-term prosperity for Kuala Tolam Village.

### **Formation Process Of Healthy Tolam Community (KOTOS)**

Seeing the urgency to address the existing problems, the stakeholders with students from BEM FKIP Riau University took proactive steps by agreeing to form the Tolam Sehat Community as a forum for collaboration between the community and the village government in designing and implementing health and environmental programs. The process of establishing this community was done in a participatory manner, involving the community in every stage of planning. Regular meetings were held to identify the priority needs of the village, formulate the vision and mission of the community, and determine the strategies and work programs to be implemented. To ensure that the Tolam Sehat Community can operate effectively and inclusively, the community organizational structure was also formed by involving representatives from various community groups, including women, youth, and other vulnerable groups, to ensure inclusivity and representation. This is important to ensure that every community group has a voice and role in the decision-making process, so that the programs implemented can address the needs of all parties without exception. Overall, the establishment of the Healthy Tolam Community in Kuala Tolam Village is a strategic and innovative step in addressing existing health and environmental issues. By involving various parties and applying a participatory approach, this community is expected to become a model for other villages in creating a healthy and sustainable environment.



**Figure 1. Inauguration of Healthy Tolam Community (KOTOS)**



**Figure 2. Handover of the Management Decree of the Healthy Tolam Community (KOTOS)**

### **Community Empowerment Strategy**

The community empowerment strategy implemented by Komunitas Tolam Sehat (KOTOS) includes three main pillars: education, participation, and collaboration. The education pillar focuses on improving the community's knowledge about health and the environment through counseling and training programs. Counseling is conducted regularly by local health workers on topics such as the importance of personal hygiene, prevention of infectious diseases, household waste management, and environmentally friendly agricultural practices. In addition, specialized training is provided to village health cadres to strengthen their capacity to disseminate information and facilitate community activities. The participation pillar emphasizes the importance of active community involvement in the planning and implementation of community-initiated programs. The programs are designed in such a way that the community can contribute directly, either through energy, time or ideas. For example, a community-based household waste management program involves residents in sorting organic and inorganic waste, recycling reusable waste, and distributing recycled products to the wider community. This program not only aims to reduce the amount of waste disposed into the environment, but also to create an additional source of income for the community through the sale of recycled products. The collaboration pillar includes efforts to build cooperation between the community, village government, and various external parties such as non-governmental organizations (NGOs) and the private sector. This collaboration aims to optimize available resources and ensure the sustainability of the programs that have been designed. One example of successful collaboration is the implementation of a community-based total sanitation (STBM) program, which involved technical and financial support from local NGOs. The STBM program has successfully increased community access to proper sanitation facilities and encouraged behavior change in terms of toilet use and wastewater management.

### **Facilitating Access to Clean Water**

KOTOS (Komunitas Tolam Sehat) in Kuala Tolam village has successfully implemented various strategies in addressing environmental health issues faced by the local community. One of the main problems faced by this village is the lack of access to clean water. To address this issue, KOTOS took the initiative to build some critical infrastructure. One of the first steps taken was to collaborate with the village and donors to build boreholes in various strategic locations. The construction of these boreholes aims to provide a clean water source that can be accessed by all villagers, especially those who live far from rivers or other natural water sources. KOTOS also provides training to villagers on the use of simple water filtration technology that utilizes

local materials such as sand, gravel, and charcoal. The technology is designed to allow each household to filter the water they obtain, ensuring that it is free from harmful contaminants such as bacteria and heavy metals. In addition to well construction and water filtration technologies, KOTOS also encourages the use of rainwater collection systems. They introduced simple and inexpensive techniques to collect and store rainwater in homes and public facilities. This collected rainwater can be used for daily needs such as washing, bathing, and watering plants, thus reducing dependence on groundwater sources that are often polluted or limited. In addition, KOTOS actively conducts campaigns and educational programs on the importance of using clean water and how to keep water sources clean. These campaigns are conducted through various media such as community meetings, posters, and social media, all of which aim to raise awareness of the importance of keeping water clean and implementing healthy lifestyles related to water use.

### **Building Waste Treatment**

Another issue that KOTOS focuses on is waste management. In Kuala Tolam village, poorly managed waste has caused various problems, including environmental pollution and health risks. To address this issue, KOTOS initiated the establishment of a waste bank as part of a more responsible and sustainable waste management solution. The waste bank serves as a collection center for waste categorized by type, such as plastic, paper, metal, and organic waste. Residents who collect and send their waste to the waste bank will receive incentives in the form of daily necessities or points that can be redeemed for various benefits. This initiative not only encourages people to be more conscious in managing their waste, but also provides additional economic benefits for residents. Furthermore, KOTOS also conducts training on recycling techniques and utilization of organic waste. The training involved residents in the learning process of converting organic waste into compost that can be used for local agriculture. The compost produced from this organic waste is used by farmers in the village to improve their soil fertility without the need to buy expensive chemical fertilizers. This is also in line with KOTOS' efforts to support sustainable agriculture and improve food security in the village. In addition, through various educational programs, KOTOS actively disseminates information on the importance of good waste management and reducing the use of single-use plastics. The campaign involves the creation of posters, flyers, as well as the use of social media to reach a wider audience, ensuring that this important message is effectively delivered to all walks of life.

### **Sanitation Improvement**

In terms of improving sanitation facilities, KOTOS has taken concrete steps to address this issue. Kuala Tolam village previously faced major challenges regarding the lack of adequate sanitation facilities, which led to some residents practicing open defecation and a lack of awareness about the importance of hygiene. To address this, KOTOS worked with the village government and non-governmental organizations to build proper public toilets at various strategic points, such as near markets, schools, and places of worship. In addition, KOTOS also installed handwashing facilities at these locations to encourage handwashing habits among residents, which is one of the important steps in preventing infectious diseases. To support these efforts, KOTOS also held a sanitation education program aimed at improving the community's understanding of the importance of good sanitation and how to maintain personal and environmental hygiene. The program includes training on how to build and maintain sanitation facilities at home, as well as counseling on the importance of maintaining toilets and domestic sewage systems. In addition, KOTOS encourages active participation of residents in maintaining and caring for the sanitation facilities that have been built through community

working groups. This participation not only ensures that the facilities remain clean and functioning properly, but also strengthens residents' sense of ownership and responsibility for their environment. Overall, the strategies implemented by KOTOS in addressing environmental health issues in Kuala Tolam village demonstrate a holistic and participatory approach. This approach emphasizes the importance of direct involvement of residents in every process and making effective use of local resources. Through this strategy, KOTOS succeeded in improving the quality of environmental health in the village, reducing the risk of diseases associated with poor sanitation, and overall improving community welfare. In addition, this approach also demonstrates that with strong collaboration between communities, government and other parties, complex environmental challenges can be addressed in an effective and sustainable way. KOTOS's experience can serve as an inspiring model for other communities facing similar challenges, demonstrating that positive change can be achieved through local cooperation, education and innovation.

### **Impact of Healthy Tolam Community (KOTOS)**

The implementation of the empowerment strategy by Komunitas Tolam Sehat (KOTOS) has had a significant impact on health and environmental conditions in Kuala Tolam Village. In terms of health, there has been a significant reduction in the incidence of diseases related to sanitation and the environment. Data from the local health center shows a 30% decrease in diarrhea cases among children in the last two years since the community was formed. In addition, increased community access to proper sanitation facilities has also had a positive impact on the quality of life of residents, especially women and children who previously had to walk long distances to get access to clean water. In addition to health impacts, the programs run by the Healthy Tolam Community also bring positive changes in environmental management in Kuala Tolam Village. The household waste management program that has been initiated has not only succeeded in reducing the volume of littered waste, but has also increased community awareness about the importance of recycling and reducing the use of materials that are difficult to decompose. As a result, the village now has cleaner and greener environmental areas, as well as better air quality. Periodic neighborhood clean-ups have also strengthened social solidarity among residents, creating a sense of shared ownership of the village. Another important impact is the increased capacity of the community to manage health and environmental issues independently. With continuous education and training, villagers now have better knowledge on how to prevent diseases, manage waste and keep the environment clean. They are also more confident in voicing their aspirations and participating in decision-making related to health and the environment. This capacity building has been an important factor in ensuring the sustainability of the programs, as the communities have gained the ability to continue these initiatives independently, even after external support has diminished.

### **CONCLUSION**

The establishment of the Healthy Tolam Community (KOTOS) in Kuala Tolam Village has successfully made a significant positive impact on the health and environment of the village community. Through a participatory approach involving various stakeholders, the community was able to identify and address pressing health and environmental issues in the village. The process of establishing the community began with the identification of key issues and was followed by program planning and implementation that involved active participation from the community. The community empowerment strategies implemented, including education, training and active participation, have successfully increased the community's awareness and skills in managing their health and environment. Programs such as household waste

management, community-based total sanitation, and gotong royong to clean the environment have shown positive results, such as decreased disease incidence, increased access to sanitation facilities, and improved environmental conditions in the village. However, challenges such as initial resistance from some communities and limited resources remain obstacles to overcome. Persuasive communication approaches and innovations in resource utilization have helped to overcome these challenges and ensure program sustainability. The valuable lessons learned from this experience confirm the importance of strong leadership, flexibility, and effective collaboration in achieving the success of community empowerment programs. Overall, the Healthy Tolam Community in Kuala Tolam Village serves as a good example of how community-based approaches and community empowerment can create sustainable and impactful change. This model has the potential to be applied in other villages facing similar challenges, with adjustments according to their respective local needs and conditions. The success of this community demonstrates that solutions involving active community participation can be effective in improving quality of life and environmental health in rural areas.

### **BIBLIOGRAPHY**

- Hadi, S., & Raharjo, B. (2021). Evaluasi Program Sanitasi Total Berbasis Masyarakat (STBM) di Desa Terpencil: Kasus di Desa Sukamaju. *Jurnal Kesehatan Masyarakat*, 45-58.
- Kusumastuti, H., & Wulandari, R. (2020). *Pemberdayaan Masyarakat dalam Pengelolaan Lingkungan: Teori dan Praktik*. Jakarta: Penerbit Universitas Indonesia.
- Lubis, M. A., & Santoso, A. (2020). *Pemberdayaan Masyarakat dalam Pengelolaan Sampah Rumah Tangga: Studi Kasus di Kota Medan*. *Jurnal Pengelolaan Lingkungan*, 23-34.
- Nugroho, S. H., & Widodo, S. (2019). Peran Komunitas dalam Meningkatkan Kesehatan Lingkungan di Pedesaan: Studi Kasus di Desa Tambakrejo. *Jurnal Ilmu Lingkungan*, 99-112.
- Prabowo, E., & Wibowo, A. (2022). Model Partisipasi Aktif Masyarakat dalam Program Kesehatan Lingkungan: Pengalaman dari Desa Wisata. *Jurnal Pembangunan Desa*, 76-89.
- Sari, M. D., & Purnomo, H. S. (2018). *Strategi Pengembangan Komunitas Berbasis Kesehatan: Pendekatan Partisipatif dan Inklusif*. Yogyakarta: Penerbit Andi.
- Sari, R. P., & Arifin, M. (2018). Studi Kasus Keberhasilan Program Pemberdayaan Masyarakat di Sektor Kesehatan dan Lingkungan. *Jurnal Kebijakan Sosial*, 55-67.
- Teguh, I. S., & Maulana, F. (2017). Keterlibatan Masyarakat dalam Pengelolaan Lingkungan: Kasus di Desa Kertasari. *Jurnal Penelitian Sosial*, 143-156.
- Wahyu, S. B., & Utami, S. (2019). *Kesehatan Lingkungan dan Pemberdayaan Masyarakat: Perspektif Terbaru dan Implementasi*. Bandung: Penerbit Alfabeta.