
Efforts to Achieve Sustainable Development Goals (SDGs) at the Village Level: A Case Study of Cibadak Village, Sukamakmur Subdistrict, Bogor Regency, West Java, Indonesia

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Abstract

This article explores the implementation of the KUM-ITT program in Cibadak Village, Sukabumi, West Java. The program addressed critical community challenges, including access to clean water and healthcare infrastructure, by engaging stakeholders through a pentahelix approach. The activities included health education, stunting prevention, and lifestyle guidance. The outcomes showed improved public awareness and access to healthcare resources, aligning with SDGs such as poverty alleviation, quality education, and sustainable community development.

Keywords: Village Development, SDGs, Health Education, Community Empowerment

INTRODUCTION

Cibadak is a village located in Sukamakmur District, Bogor Regency, West Java. This village is a rural area known for its scenic beauty and rich agricultural potential. Spanning an area of 264.7 hectares, the village is known for their nature attractions such as waterfalls and fertile agricultural land that support crops like rice and coffee. Beneath its natural charm, lies a range of challenges such as limited access to clean water and healthcare infrastructure that impact the well-being of its residents.

The village's hilly location makes it difficult to supply essential services, such as water distribution and accessibility to health services. This results in many residents facing significant barriers in accessing basic health services. This in turn leads to pressing issues such as stunting among children, poor maternal health, and a lack of awareness about preventative healthcare practices.

To address these challenges, the KUM-ITT program was initiated as part of a community service initiative. The program aims to empower the community by focusing on education, health, infrastructure improvements, and sustainable practices. The main target groups of the program are women, children, and the elderly. These groups are disproportionately affected by these issues. This initiative is also in line with Indonesia's commitment to achieving the Sustainable Development Goals (SDGs), particularly in the areas of health, education, and poverty alleviation.

The KUM-ITT program emphasizes a collaborative approach through the Pentahelix Model. The Pentahelix Model involves government agencies, academic institutions, local communities, and private sector participation. By leveraging the expertise and resources of

these stakeholders, the program seeks to provide impactful and sustainable solutions to address village challenges. This approach also fosters a sense of shared responsibility among stakeholders.

One of the main components of the program was health education. The focus for health education was addressing different topics such as proper childcare, stunting prevention, and the adoption of healthy lifestyles. These activities were designed to improve residents' understanding of key health issues while equipping them with practical strategies to address these challenges. Counseling sessions, workshops, and health checks were among the methods employed to engage the community.

In addition to initiating immediate health concerns, this program focused on long-term capacity building. Villagers were trained to adopt sustainable practices in healthcare and sanitation, to ensure that the benefits of this program would persist beyond its initial implementation. The emphasis on local involvement and capacity building were crucial in creating a foundation for self-reliant development within the community.

This article explores the implementation and outcomes of the KUM-ITT program in Cibadak Village, highlighting its role in addressing critical challenges and promoting sustainable development. By documenting the program's design, execution, and impact, this study aims to provide insights into the effectiveness of community-based initiatives in achieving the SDGs at the village level

RESEARCH METHODS

The research methods of the KUM-ITT program in Cibadak Village involved a combination of qualitative and quantitative approaches. These approaches are designed to identify community needs and implement effective interventions. These methods included situational analysis, participatory observations, interviews, and health counseling. The multi-method approach ensured a comprehensive understanding of the community's challenges and opportunities. Here are the method steps for the program.

Situational Analysis

The initial phase involved conducting a situational analysis to identify key challenges in the village. This was achieved through field observations and reviewing secondary data about the demographic, geographical, and socio-economic conditions of Cibadak Village. The analysis highlighted critical issues such as access to clean water, inadequate healthcare infrastructure, and prevalent health problems like stunting and poor maternal health.

Participatory Observations

The KUM-ITT team conducted participatory observations during their field visits to better understand the daily lives and challenges faced by the villagers. This method enabled the team to assess environmental conditions, such as water access and sanitation, and gather insights on community behaviors and practices related to health and hygiene.

Interviews and Focus Group Discussions

Structured interviews and focus group discussions were conducted with key stakeholders, including village leaders, healthcare workers, and villagers. These interactions provided detailed information on community needs and priorities. Interviews were also held with vulnerable groups such as women, children, and the elderly to understand their specific health challenges.

Health Counseling and Workshops

Interventions were designed based on the findings from the situational analysis and interviews. The team organized health counseling sessions and workshops on topics such as stunting prevention, healthy lifestyles, proper brushing techniques, and childcare practices. These sessions incorporated interactive components to actively engage participants.

Program Implementation

The work programs were implemented over a one-week period. These are the activities that focused on this program.

Table 1 Program Implementation

Activity	Method	Target Group	Expected Outcome
Childcare Education	Workshops	Parents	Improved childcare practices and nutritional habits
Health Screening	Health check-ups and surveys	Villagers	Increased awareness of health status and risks
Dental Care Education	Counseling and demonstrations	Children	Enhanced understanding of dental hygiene
Stunting Prevention	Counseling sessions	Pregnant women, parents	Reduced risk of stunting among children
Villagers Observation	Field visits	Villagers	Identification of environmental and health issues

Source: Result Report

Data Collection and Analysis

The effectiveness of the interventions was assessed through pre- and post-program surveys, participant feedback, and observational data. Data collected during the workshops and health screenings were analyzed to determine changes in awareness and behavior among participants.

RESULTS AND DISCUSSION

The KUM-ITT program in Cibadak Village successfully addressed key community issues, particularly access to healthcare, clean water, and health education. Over a one-week period, the program engaged residents through counseling, workshops, and health screenings. These activities followed the example from another KUM-ITT program in Ciambar Village, Sukabumi, under the title *The Role of Trisakti University Students in Enhancing Community Resources in Ciambar Village, Sukabumi, through Independent Entrepreneurial Activities in Applied Science and Technology* (Nurhayati, et al, 2024). These activities were also designed to empower the community while promoting sustainable practices, aligning with the SDGs highlighted in the introduction.

A participatory approach ensured significant community involvement. Workshops on childcare practices and stunting prevention were attended by over 100 parents. Meanwhile,

health screenings attracted diverse participants, including children, women, and the elderly. Villagers' willingness to engage reflected a growing awareness of health and well-being.



Figure1 Health Education Workshop
Source: KUM-TT Documentation

Childcare Practices and Nutrition Awareness

Workshops on childcare practices, including discussions on balanced diets and sugar management in snacks, showed significant impact. Pre-survey results indicated that only 40% of participants understood the importance of balanced nutrition, while post-program surveys showed an increase to 85%. This highlights the effectiveness of targeted education in addressing knowledge gaps.

Table 2 Comparison of After and Before Childcare Education

Indicator	Before Program (%)	After Program (%)
Understanding of nutrition	40%	85%
Awareness of sugar risks	30%	80%

Source: Result Report

Stunting Prevention Efforts

Stunting prevention counseling focused on pregnant women and parents of young children. The discussions addressed critical topics such as maternal nutrition and early childhood dietary needs. A notable outcome was the formation of a local support group for ongoing peer education on stunting prevention.



Figure2 Counseling Sessions for Mothers and Children
Source: KUM-TT Documentation

Health Screening and Diagnostics

Health screenings identified prevalent issues such as hypertension and high blood sugar levels among villagers. The total of villagers who participated are 150, with 30% identified as at risk of chronic diseases. These findings emphasize the importance of regular health check-ups. The table below provides the detail of the findings.

Table 3 Villagers' Health Conditions

Health Condition	Identified Cases (%)
Hypertension	18%
High Blood Sugar	12%
High Cholesterol	10%

Source: Result Report

Post-program surveys revealed that villagers have improved their health behaviors. For example, 70% of families reported adopting healthier diets, while 50% implemented regular hygiene practices, such as handwashing and proper food storage.

Dental Hygiene Education

Dental hygiene was another key focus, particularly for children at Cibadak Village. Demonstrations on proper brushing techniques were well-received, with 120 children participating. Pre- and post-workshop surveys showed a 60% improvement in understanding proper dental care practices.

Infrastructure and Environmental Insights

Observations of villagers' habits show that environmental conditions have a significant impact on their health. Critical issues such as limited access to clean water and poor sanitation need to be addressed more thoroughly. The KUM-ITT team recommended the construction of additional clean water reservoirs. In addition, the KUM-ITT Team educated the community on proper waste management. This is considered a small step that leads to habits.



Figure3 Cibadak Village Water Sanitation and Waste Problem

Source: KUM-TT Documentation

The KUM-ITT program effectively using the pentahelix model, which fostered collaboration among local leaders, health workers, academic institutions, and community organizations. This approach ensured that diverse stakeholders pooled their expertise and resources to address pressing community issues, particularly in health and infrastructure. The involvement of the village leaders was crucial to build trust and encourage an active community

participation. Later, it will contribute to the smooth execution of the program. Collaborative efforts led to the successful implementation of workshops, health screenings, and educational initiatives, which directly addressed the community's needs. These partnerships not only facilitated immediate interventions but also created a supportive framework for sustaining long-term positive outcomes.

Despite these successes, the program faced notable logistical challenges, particularly in transportation and healthcare accessibility. Many villagers struggled to access health facilities due to long distances and inadequate infrastructure, which limited the program's reach in addressing healthcare gaps. These challenges underscored the necessity of decentralized healthcare services that can provide support closer to villagers' homes. Additionally, infrastructure improvements, such as better roads and local healthcare facilities, were identified as critical needs for ensuring equitable access. Addressing these barriers will be essential in ensuring that the program's benefits are both inclusive and sustainable for the entire community.

To secure long-term impacts, the program prioritized capacity building and community empowerment through various strategies. Regular health workshops were recommended to reinforce the knowledge imparted during the program and to address emerging health concerns. Strengthened partnerships with government agencies and private organizations were proposed to facilitate infrastructure development and resource allocation. A standout recommendation was the creation of a "health ambassador" program, which would empower community members to take leadership roles in promoting health and well-being. By addressing systemic challenges and fostering a culture of health awareness, the program made significant contributions to SDGs, including good health, quality education, and clean water. These efforts have laid a robust foundation for holistic and sustainable development in Cibadak Village.

CONCLUSION

The KUM-ITT program implemented in Cibadak Village successfully addressed critical challenges in health education, childcare practices, stunting prevention, and environmental management. By engaging the community through workshops, health screenings, and collaborative governance under the pentahelix model, the program effectively improved residents' awareness of health issues and encouraged sustainable practices. The initiatives not only bridged gaps in healthcare access and knowledge but also empowered the community to adopt healthier lifestyles and implement long-term solutions. Despite logistical challenges, the program demonstrated that community-centered approaches, combined with stakeholder collaboration, can significantly contribute to achieving the Sustainable Development Goals (SDGs) at the village level, fostering meaningful and sustainable change for the residents of Cibadak Village.

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