SOCIAL STUDIES OF SUSTAINABLE DEVELOPMENT IN THE ERA OF ARTIFICIAL INTELLIGENCE
(A Case of Study at Kampung Mahmud)

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Abstract

This study explores the role of wali in spreading Islam in Java by adapting local customs such as puppets and religious ceremonies, which allow for the acceptance of Islam without disturbing the social and cultural balance. Mahmud Village in Bandung Regency, which Eyang Abdul Manaf founded in the 15th century, was used as a case study. Using a qualitative approach that includes participatory observation, in-depth interviews, and literature reviews, this study reveals that the religious traditions of Kampung Mahmud preserve cultural and spiritual values and unite the community in the modern era. Effective methods include adapting local customs such as puppets and religious ceremonies, which facilitate the acceptance of Islam without disturbing the social and cultural balance. The Mahmud Village, founded by Eyang Abdul Manaf in the 15th century, was chosen as a case study to show how religious traditions and ceremonies can survive in the modern era. Qualitative research through in-depth interviews, participatory observations, and literature reviews shows that religious traditions in Mahmud Village preserve spiritual and cultural values and unite the community. The study also evaluates the potential for integrating artificial intelligence (AI) in social studies to support sustainable development without sacrificing traditional values. AI can help document traditions, develop educational applications, and support sustainable agriculture in Mahmud Village. In conclusion, AI can improve the preservation of local people's culture and economic well-being through the collaboration of the government, academia, and the community.

Keywords: Tradition, Customs, Modernization, Artificial Intelligence.

INTRODUCTION

Sustainable development is an issue that increasingly dominates the global discourse, along with increasing awareness of the impact of uncontrolled exploitation of natural resources. The main goal of sustainable development is to create a balance between economic, social, and environmental aspects so that future generations can enjoy conditions equal to or better than the current generation. In the digital age, artificial intelligence (AI) has emerged as a critical technology that can accelerate the achievement of sustainable development goals by providing innovative solutions in various sectors, from agriculture to thoughtful urban planning. However, the use of AI in sustainable development is inseparable from social challenges involving unequal access, changes in social structures, and technological dependence.

Previous research has highlighted the potential of AI in supporting sustainable development. For example, a study by Vinuesa et al. (2020) shows that AI can contribute significantly to achieving 134 out of 169 targets in the 17 Sustainable Development Goals (SDGs). The research highlights the role of AI in helping countries address environmental challenges such as climate change, energy management, and urbanization sustainability. Vinuesa et al. also found that AI could be used to develop greener technologies

and improve industrial efficiency, but warned of potential risks such as increased inequality and negative social impacts if these technologies are not applied carefully.

Meanwhile, research by Mhlanga (2021) explores social barriers to the application of AI, especially in developing countries. Mhlanga argues that while AI has great potential to accelerate sustainable development, inequality of access to technology and infrastructure is a significant barrier. The study also shows that countries with limited access to technology will further lag in achieving the Sustainable Development Goals, creating a deeper gap between developed and developing countries.

At the local level, Syaharuddin (2024) revealed that integrating artificial intelligence (AI) technology in agriculture in rural Indonesia produces diverse impacts in all social, economic, and environmental domains. Adopting AI could trigger shifts in farmers' cultivation practices, perception of nature, and social interactions, impacting productivity and well-being. However, the study also shows that the successful implementation of AI is highly dependent on the readiness of local communities to adopt new technologies, which are often limited by factors such as technological literacy and adequate access to infrastructure.

Furthermore, the history of Mahmud Village will be explained by Nugraha et al. Starting from the previous guardians who spread Islam on the island of Java with various methods and approaches aimed at the local population. Their main goal was for the spread of Islam to occur quickly and be accepted and lived by the people at that time. One of the methods they use is to incorporate Islamic teachings through customs that already exist in the community that are the target of their da'wah (Nugraha et al., 2022). For example, they use puppets or various religious ceremonies that are usually carried out by the local community as a medium to convey Islamic teachings. The spread of Islam is carried out gradually from one place to another, from one region to another, without releasing elements of habits or customs that already exist in society. The guardians are very

discreet in their approach, ensuring that this da'wah process does not disturb the local social and cultural balance. This allowed Islam to spread throughout Java, from the north coast to the south coast and from west to east, including the Bandung Regency area.

Bandung Regency did not escape the attention of the guards in spreading Islam. One of the areas in Bandung Regency that is the center of the spread of Islam is Mahmud Village, which is located on the outskirts of the Citarum River. This village plays an important role as a center for the spread of Islam in the region. The name "Mahmud" comes from the Arabic language, which means "praise". However, in the local context, this word has a deeper meaning, namely "proud" and "with sincere affection". This reflects the attitude and enthusiasm of the people of Kampung Mahmud in maintaining and practicing Islamic teachings that have been inherited by their ancestors (Noor Azida Batubara, 2022).

Mahmud Village was founded around the 15th century by Semba Eyang Abdul Manaf, a descendant of Syarif Hidayatullah, who came from the Cirebon Settlement. Cirebon is known as one of the centers of Islam spread on the island of Java, and from here, Islamic teachings then spread to Mahmud Village ((Sumiati, 2008). In this village, Islam is spread by one of the guardians, who has a significant commitment and responsibility to spread it. Kampung Mahmud, located in Bandung Regency, West Java, is a unique example of a community that has managed to maintain the beliefs and traditions of its ancestors amid modernization. Religious solid traditions and ceremonies are the hallmarks of Mahmud Village, reflecting the spiritual richness that continues to be maintained by the community.

Even in today's era of artificial intelligence (AI), it is important to understand how these technologies can be integrated into social studies to drive sustainable development without sacrificing long-held traditional values. Mahmud is derived from the Arabic word, which means Mahmud, which means praise. The word "praise" does not mean "admired" but means "reueus" (proud) and "deudeuh" (with sincere affection). The origin of the Mahmoud

village cemetery complex. Mahmud Village was founded around the 15th century. Its founder was Semba Eyang Abdul Manaf, who continued the lineage of Syarif Hidayatullah from the Cirebon Settlement. As is well known, Cirebon is the center of the spread of Islam on the island of Java until it can finally spread to Mahmud Village.

In this area, Islam is spread by one of the guardians who certainly has the commitment and responsibility to spread Islam. Mahmud Village, located in Bandung Regency, West Java, is a rare example of a community that has maintained the beliefs and traditions of its ancestors at that time. Solid religious traditions and ceremonies are the hallmark of Mahmud Village, reflecting the spiritual wealth that continues to be maintained by the community. In today's era of artificial intelligence (AI), it is important to understand how to integrate this technology into social studies to encourage sustainable development without neglecting traditional values (Wahyudi, 2023). Integrating AI in social studies can offer significant opportunities to improve efficiency and effectiveness in research and practical applications. However, several challenges must be faced to ensure that this technology is used ethically and sensitively to existing cultural and social contexts (Renaldo Fajar, 2023). This research aims to explore various approaches in combining AI with social studies and evaluate their impact on the preservation of traditional values and the sustainability of society.

Looking at previous research, this article will discuss the role of AI in sustainable development, focusing on the social challenges that arise as a result of its implementation. Through a social studies approach, this article aims to understand the social dynamics that arise from the integration of AI in sustainable development and provide a critical view of how these technologies can be implemented in a fair and inclusive manner.

METHOD

The research carried out is one of the efforts to uncover various phenomena in Mahmud Traditional Village. This research uses a qualitative approach to deeply understand the phenomenon of religious traditions and ceremonies in Mahmud Village. Qualitative research is chosen because the research conducted aims to describe a title without using systematic and detailed calculations so that the research carried out can be understood and understood to explain a phenomenon used as a research object. Data collection techniques include in-depth interviews with religious leaders in the Mahmud Village area. This aims to further explore the customs/habits and things that are usually done by the surrounding community, community leaders who are village elders, and residents of Mahmud Village.

To complement the data collection technique, participatory observation was carried out to experience firsthand the process and atmosphere of the ceremony, as well as to understand the social interaction that occurred in it. This participatory observation is deliberately carried out so that data collection does not become ambiguous but is felt directly by the researcher. It is necessary to study the literature to support various data collection techniques. The document study was carried out by collecting and analyzing various related documents, such as historical records and literature about religious traditions in Mahmud Village. The data analysis technique used is thematic analysis to find patterns, categories, and concepts that are relevant to understand the phenomenon.

RESULTS AND DISCUSSION
A. History and Religious Traditions in Mahmud Village

Some opinions describe the history of the establishment of Mahmud Village, although all of these opinions mention Eyang Abdul Manaf as the founder of Mahmud Village. Mahmud Village began after Eyang Abdul Manaf returned from Mecca. He originally went to Mecca to study religion and stayed there for a long time. Before leaving Mecca, suspicion came to him, saying that a foreign nation would come and colonize his country.

His concern for the suspicion led him to pray solemnly at a place near the Grand Mosque called Gubah Mahmud. At Mahmud's hut, he prayed to return to a place that would not be colonized. After praying for a long time and asking for guidance, he was inspired and decided to return with a handful of soil from Mecca. He wanted to promote Islamic values by establishing a village after returning to the land. After a long time of wandering around looking for suitable land to build his village, Eyang Abdul Manaf found a swampy land shaped like an island divided by a river. This land is the site of Mahmud's founding (Zaky et al., 2024).

Mahmud Village was established on selected land in the 15th century or around 1405 AD. Mahmud Village has a long history that began with the arrival of Eyang Abdul Manaf in the 15th century. Religious traditions that are still preserved today include Haolan/commemorating the 1st anniversary of the deceased, the Birthday of the Prophet Muhammad SAW, and commemorations of Islamic holidays such as Eid al-Fitr and Eid al-Adha (Kikki Ayu Kirana et al, 2019). This tradition serves as a guardian of spiritual and cultural values as well as a tool to unite society in the midst of the challenges of modernization. This religious tradition that has been carried out for generations is one of the efforts to preserve Islamic values that were usually carried out by the predecessors in Mahmud Village. On certain days/months, Mahmud Village is visited by many people from various regions who make pilgrimages to the cemetery to pray for Waliallah and commemorate his services in spreading Islam.

B. The Role of Technology in the Age of Artificial Intelligence

In the era of artificial intelligence (AI), technology has great potential to support the preservation of religious traditions in Mahmud Village. Technology can contribute by documenting traditions by digitizing historical manuscripts and documents. This process creates a digital archive that stores important information and makes it accessible to future generations. Additionally, AI can be used to develop educational applications designed to

teach younger generations about the importance of preserving local traditions and culture. This application can provide in-depth knowledge about the history, values, and religious practices in Mahmud Village, thereby helping to strengthen cultural identity among children and adolescents. As such, technology documents the past and plays an important role in educating and inspiring the next generation to preserve their cultural heritage (Siswandoyo & Asnan, 2023).

C. The Use of AI in Documentation and Resource Management in Mahmud Village

The application of artificial intelligence (AI) in the documentation process of religious ceremonies such as Haolan and the Prophet Muhammad's Birthday in Mahmud Village can produce more detailed and accurate recordings of these religious practices. AI technology allows for more comprehensive data collection, including visual, audio, and text, providing a more holistic picture of religious activities carried out by local communities.

In addition to documenting religious traditions, AI also plays a role in improving the efficiency of natural resource management in Mahmud Village. AI can be used to analyze weather patterns, soil conditions, and water needs, thus assisting farmers in optimizing their farming practices. Thus, using this technology can support sustainable agriculture which is one of the main livelihoods of the people of Mahmud Village. Through this approach, AI not only helps preserve culture but also contributes to improving the economic well-being of local communities.

CONCLUSION AND ADVICE

This research shows that Mahmud Village has a long history that began in the 15th century with the arrival of Eyang Abdul Manaf after returning from Mecca. Religious traditions that have been passed down from generation to generation, such as the commemoration of Haolan, the Birthday of the Prophet Muhammad SAW, and other Islamic holidays, continue to be preserved as an effort to maintain spiritual and cultural values, as well as strengthen social ties in modernization.

In the era of artificial intelligence (AI), technology has great potential to support the preservation of religious traditions in Mahmud Village. AI can be used to document traditions by digitizing historical manuscripts and archives so that future generations can store and access important information.

In addition, AI can play a role in developing educational applications that help the younger generation understand the importance of preserving local culture and traditions. The use of AI in natural resource management also contributes to improving the efficiency of sustainable agricultural practices, which is one of the main livelihoods of the people of Mahmud Village. Thus, AI technology supports cultural preservation and has a positive impact on the economic well-being of local communities.

Additionally, integrating artificial intelligence in social studies can support sustainable development without sacrificing traditional values. The religious traditions and ceremonies in Mahmud Village, which reflect Indonesia's spiritual and cultural richness, can be preserved and promoted through AI technology. Therefore, it is important to continue to develop and implement these technologies in a way that respects and supports local values.

The development of artificial intelligence (AI) technology has created great opportunities to support the preservation of local culture, but this can only be achieved through close cooperation between the government, academia, and local communities. The government plays a role in formulating policies that support cultural preservation technology. At the same time, academics can contribute to developing AI applications that are relevant to the needs of local cultures. The local community must be actively involved so that the technology developed is by the needs and in line with the cultural values that are upheld. With this effective collaboration, AI can be optimized to preserve traditions and cultural heritage without neglecting the unique characteristics that exist in local communities.

REFERENCE

Mhlanga, D. (2021). Artificial Intelligence in Industry 4.0, and its impact on poverty, innovation, infrastructure development, and the sustainable development goals: Lessons from emerging economies? *Sustainability (Switzerland)*, *13*(11). https://doi.org/10.3390/su13115788

Nugraha, F., Sejarah, P., Islam, P., Adab, F., Universitas, H., Negeri, I., Gunung, S., & Bandung, D. (2022). Aktivitas Mubaligh Syeikh Abdul Manaf Dalam Penyebaran Agama Islam Di Kawasan Bandung Raya Pada Abad Ke 17-18 M. *Tarpin 1 Priangan*, *1*(2), 2022.

Siswandoyo, E. B., & Asnan, M. (2023). *Jurnal Ilmiah Ilmu Sosial Budaya Sumber Serut : Potensi Alam , Dan Kekuatan Tradisi Pusaran Teknologi Kecerdasan Buatan (Perspektif Komunikasi Antar Budaya). 18*(2).

Sumiati, E. T. (2008). *Perubahan Tradisi Ziarah Kubur Di Kampung Mahmud Desa Mekarrahayu Kec. Margaasih Kabupaten Bandung.*

Syaharuddin. (2024). *Seminar Nasional Pertanian Artificial Intelligence-Based Innovation in Improving Agricultural Production and Welfare of Village Farmers in Indonesia.* 1–14.

Vinuesa, R., Azizpour, H., Leite, I., Balaam, M., Dignum, V., Domisch, S., Felländer, A., Langhans, S. D., Tegmark, M., & Fuso Nerini, F. (2020). The role of artificial intelligence in achieving the Sustainable Development Goals. *Nature Communications*, *11*(1), 1–10. https://doi.org/10.1038/s41467-

019-14108-y

Wahyudi, T. (2023). Studi Kasus Pengembangan dan Penggunaan Artificial Intelligence (AI) Sebagai Penunjang Kegiatan Masyarakat Indonesia. *Indonesian Journal on Software Engineering (IJSE)*, *9*(1), 28–32.

Zaky, M., Driknianto, B., Salsabila, D., Meilani, A., Maulana, M. S., & Aliyan, S. A. (2024). *Adaptasi Rumah Panggung Kampung Mahmud terhadap Kondisi Geografis sebagai Mitigasi Bencana Gempa Bumi*. *25*(1), 81–96.