



Allocation Of Green Open Space In The Church Courtyard As Green Ecclesiology Implementation

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		Abstract
Received:	07 July 2025	<p><i>This study highlights the urgency of implementing Green Open Space (RTH) in church environments as a form of green ecclesiology. The environmental crisis due to climate change and exploitation of natural resources demands the active involvement of various sectors, including the church, in maintaining ecological balance. The church plays a strategic role in shaping the ecological awareness of the congregation and becoming an agent of change in environmental conservation. This study uses a qualitative descriptive method with a literature review approach to explore the ecological, social, and spiritual benefits of RTH, as well as the challenges faced in its implementation. The results of the study show that the presence of RTH in churches contributes to improving air quality, reducing environmental temperatures, and providing space for spiritual reflection and social interaction of the congregation. However, in its implementation, the church faces obstacles such as limited land, lack of congregation awareness, and lack of regulatory and financial support.</i></p>
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INTRODUCTION

Currently, there is hardly anyone in the world who does not feel the impact of climate change. The quality of the environment continues to decline due to global warming, the exploitation of natural resources, and the lack of ecological awareness. Climate change has caused various adverse impacts, such as rising global temperatures, extreme weather, increased pollution, and a decrease in the quality of natural resources such as water, soil, and air. In various regions, this environmental crisis is further exacerbated by unsustainable human activities, including the exploitation of natural resources without considering the carrying capacity of ecosystems (Hasid, et al., 2022:33). According to Robert Borrong (2000), the development of science and technology has had a significant impact on human life, both in terms of economic progress, health, and social welfare.



However, on the other hand, this advance has also led to the uncontrolled exploitation of nature. Natural resources are being spent without careful calculation, and humans are getting further and further away from the ecological consciousness that is based on morality and spirituality. Nature is exploited massively without taking into account its impact on the environment and the survival of future generations. One of the entities that is expected to take an active role in efforts to overcome the deterioration of environmental quality is the Church.

The Church as a community of faith has a responsibility to participate in environmental conservation efforts (Kurniawaty, et al., 2024). The church is not only a place of worship, but also has a role in shaping the ecological awareness of the congregation and providing an example in maintaining the balance of the ecosystem. In green ecclesiology, the church is seen as an agent of change that is able to educate and encourage real action in efforts to preserve the environment (Manuahe, 2024).

In Indonesia, awareness of the importance of green open space (RTH) in the church environment is still relatively low. Many churches in urban areas prioritize infrastructure development such as parking lots and halls rather than allocating land for reforestation. This results in a decrease in water catchment area, an increase in ambient temperature, and a decrease in air quality around the church. In fact, in the context of ecotheology, the presence of RTH in the church environment is part of the moral responsibility in maintaining the balance of nature as a form of obedience to God's mandate to manage the earth wisely (Genesis 2:15).

The concept of green ecclesiology emphasizes that the church is not only responsible for the spiritual life of the congregation, but also for the sustainability of the surrounding environment (Saefatu, 2021). The existence of green open spaces in the church environment not only serves as an ecological element that is beneficial to the environment, but also has social and spiritual value. RTH can be a place for congregations to worship, meditate, and reflect on God's greatness through the natural beauty of His creation. In addition, RTH can also be a space for social interaction for the congregation as well as a forum for education for the younger generation in understanding the importance of protecting the environment.

The concept of green open space has long been applied in sustainable urban governance (eco city), where the existence of RTH not only serves as an ecological element, but also has social and spiritual benefits. In Indonesia, almost all levels of government, both national, provincial and regency/city, have rules about their respective regional spatial plans. For example, the Semarang City Government has implemented a green open space arrangement policy through Semarang City Regional Regulation No. 7 of 2010 concerning Green Open Space Arrangement. This regulation aims to create an ecological balance in urban development and improve the quality of life of the community through the provision of adequate green areas (Arifiah & Suhartoyo, 2022). Unfortunately, many churches are not yet aware of the importance of providing green space as part of their social and ecological responsibility.

Really; in its implementation; Churches in urban areas face the challenge of land constraints which are often an obstacle in the provision of RTH. Many churches stand in areas with limited area, making it difficult to provide adequate green space. Planning does not begin by paying attention to the carrying capacity of the available land. In addition, the lack of understanding and awareness of the congregation regarding the importance of RTH is also an obstacle in its implementation and development. Many churches prioritize functional aspects such as building expansion and parking lots without considering their impact on the surrounding environment. In fact, if managed properly, green open spaces can provide enormous benefits for churches and congregations.

Regulations that regulate the existence of green open spaces actually exist, as stated in the Regulation of the Minister of ATR/BPN No. 14 of 2021 which requires each urban area to have a proportion of RTH of at least 30% of the total area (Santoso, et al., 2022). However, the implementation of this rule still faces various challenges, especially in terms of supervision and compliance. Many churches are not yet aware of the importance of RTH as part of their social and ecological responsibility, so the existence of green spaces in the church environment is still not a top priority. Nonetheless, there are some churches that have taken progressive steps in integrating green open spaces within their environments. Some churches have begun planting trees around worship areas, building prayer gardens, and managing church gardens as part of environmental sustainability programs. This initiative not only provides ecological benefits, but also enriches the spiritual experience of the congregation in worship in the midst of the natural beauty of God's creation.

Through this research, it is hoped that applicable and relevant solutions can be found in implementing environmentally friendly ecclesiology through the provision of RTH in the church environment. The Church can play an active role in encouraging a paradigm shift among the congregation to be more concerned about the environment, as well as taking concrete steps in creating greener and more sustainable spaces. Thus, the church is not only a place of worship, but also a center of education and inspiration for the community in preserving the environment. This article aims to examine the concept of RTH in the context of the church, the benefits obtained, as well as the challenges that may be faced in its implementation. Thus, it is hoped that the church can adopt a more ecological approach in managing its environment. In addition, this study also aims to provide recommendations for churches in Indonesia to be more proactive in applying green ecclesiology principles as part of their responsibility to God's created nature.

RESEARCH METHOD

This study uses a descriptive-qualitative method to explore the urgency and strategy of implementing green open space (RTH) in the church courtyard as an environmentally friendly ecclesiology implementation. The qualitative research method aims to understand the meaning of a phenomenon in its

natural context by exploring the subject's experiences and views through text, image, or sound recordings that are inductively analyzed (Fathun Niam et al., 2024). In this approach, the descriptive method is used to present a systematic picture of the phenomenon being studied without manipulating variables, so as to identify patterns and relationships in a particular context (Moleong, 2005).

The research data was collected through literature studies from various sources that discuss ecological theology, green spatial regulation, and previous research related to the role of the church in environmental conservation. The analysis was carried out by describing the ecological, social, and spiritual benefits of the existence of RTH as well as the challenges faced by the church in its implementation. With this approach, the research not only provides a theoretical picture, but also offers an applicative solution for the church in integrating ecological principles into ecclesiastical spatial planning and activities.

RESEARCH RESULTS AND DISCUSSION

1. Green Ecclesiology: The Church in Harmony with Creation

Ecclesiology is a branch of theology that discusses the nature of the church and its role and mission in the world. The Greek word *ekklesia* means the church called out, affirming that the church is the body of Christ sent to be a light to the world (1 Peter 2:9) (Adut, et al, 2024). In the development of the times, the understanding of ecclesiology not only focuses on spiritual and institutional aspects, but also embraces the church's responsibility to the environment as part of its call to faith.

The Church has an important role to play in raising awareness of the environmental crisis and connecting the teachings of faith with concern for nature (Harefa, et al., 2024). As a reflection of God's love and justice, the church is called to be an agent of change in an effort to preserve the sustainability of the earth. The Bible states that God created the world and entrusted it to humans to manage wisely (Genesis 1:28; Psalm 24:1) (Meo & Natar, 2025). Unfortunately, the overexploitation of natural resources has resulted in environmental degradation and ecological injustice. As Pope Francis said in the encyclical *Laudato Si'*, "We are facing not only an environmental crisis but also a moral and spiritual crisis, which demands a profound ecological conversion." The world is a gift of God that should be guarded, not exploited. The Church must take part in the restoration of creation by teaching the church the importance of environmental preservation (Romans 8:19-23).

Green ecclesiology emphasizes that the church is not just a place of worship, but also a community that is responsible for the well-being of God's creation. The mandate to care for the earth has been given from the beginning (Genesis 2:15), and the church must be an example in ecological concern (Budiman, et al., 2023). Environmental damage not only impacts nature, but also reflects the breakdown of man's relationship with God and His creation (Romans 8:19-23). As stated by theologian Jürgen Moltmann, "The Church rooted in eschatology must understand that salvation is not only for humans, but for all creation" (Wibowo,

2023). Therefore, the church must form congregational awareness of a more sustainable lifestyle and defend those affected by the environmental crisis.

As a community of faith, the church can realize environmental concern through various concrete steps. For example, applying the correct architectural design conception in the construction of church buildings, using renewable energy, managing waste responsibly, and utilizing church land for nature conservation. In addition, churches can organize environmental education programs for the congregation and the surrounding community, as well as collaborate with local communities and environmental organizations in real action. As it says in Proverbs 12:10, "The righteous look to the life of his animals, but the mercy of the wicked is cruel." Green ecclesiology is a manifestation of faith that aligns spirituality with ecological concern. The Church is called to focus not only on the salvation of the soul, but also on the restoration of the entire creation. Through education, liturgy, concrete action, and advocacy, the church can play an active role in maintaining ecological balance for the sustainability of life on earth. Thus, the church is not only a place of worship, but also a center of transformation for a more sustainable world.

2. The Role of Green Open Space as a Form of the Church's Witness to the Environment

Green ecclesiology is not just an abstract theological concept, but a concrete call for the church to carry out its role in environmental conservation. Green Open Space (RTH) in the church environment is one of the manifestations of ecological responsibility that must be prioritized. In this context, the church not only functions as a center of worship, but also as an example in efforts to preserve nature. The existence of RTH in the church grounds makes a significant contribution in 4 (four) main aspects: ecological, social, spiritual, and legal. From an ecological point of view, RTH functions as an absorber of air pollutants, a provider of water catchment space, and a habitat for local flora and fauna. Planting trees in church settings, for example, can help reduce the urban heat island effects that often occur in urban areas (Hasid, et al., 2022:33). In addition, the presence of RTH also plays a role in maintaining the balance of the ecosystem by providing green spaces that support biodiversity.

From the social aspect, RTH can be a place to gather and interact for the congregation and the surrounding community. A church that has a large garden or green area can be used for a variety of community activities, such as prayer fellowships, Sunday school, or other social activities. This creates stronger social bonds in the congregational community and encourages active participation in maintaining the cleanliness and beauty of the church environment (Kurniawaty, et al., 2024). Spiritually, RTH can be a space for reflection and contemplation for the congregation. The natural beauty presented through the church garden can deepen the experience of faith and provide an atmosphere conducive to spiritual contemplation. In the Christian tradition, nature is often seen as a reflection of God's greatness, as stated in Psalm 19:1: "The heavens declare the glory of God, and the firmament declare the work of his hands." Therefore, the existence of RTH in the

church environment is not only about environmental preservation, but also enriching the spiritual life of the congregation (Manuahe, 2024).

Although the benefits of RTH for churches are clear, its implementation still faces various challenges. One of the main obstacles is the limited land, especially for churches in densely populated areas. In these conditions, churches often prefer to allocate available land for other facilities such as parking lots or multipurpose halls. To address this problem, churches can look for creative solutions such as building vertical gardens or utilizing rooftops as green areas (Santoso, et al., 2022). In addition to land limitations, the lack of awareness of the importance of ecology in the life of faith is also an obstacle. Many congregations do not yet understand that caring for the environment is part of their call to faith. In this case, the church needs to take more intensive educational steps, such as holding environmental seminars, group discussions, or reforestation programs that involve the congregation directly (Saefatu, 2021).

Another challenge is the cost factor. The construction and maintenance of RTH requires a lot of investment, both in terms of infrastructure and plant maintenance. To overcome these obstacles, churches can work with local communities or environmental agencies that can provide technical and material assistance. In addition, churches can also raise funds from the congregation through special donation programs for church greening (Maimunah, et al., 2024). In order for RTH to become an integral part of the church environment, a mature implementation strategy is needed. One approach that can be done is the integration of green design starting from planning, development, to church development. For example, from the beginning of the construction of the church, a space dedicated to greening must be planned. This design includes the selection of plants that are in accordance with local environmental conditions, the use of environmentally friendly materials, and an efficient irrigation system (Arifiah & Suhartoyo, 2022).

In addition, the church can adopt the concept of ecotheology in its teachings and worship practices. Sermons can more often address the theme of environmental conservation as part of the responsibility of faith. The church can also hold routine programs such as reforestation service work, tree planting on religious holidays, and plastic waste reduction campaigns in ecclesiastical activities (Budiman, et al., 2023). It is also important for churches to collaborate with external parties, including local governments, academics, and environmental organizations. With support from various parties, churches can gain access to wider resources in developing and maintaining RTH (Wibowo, 2023).

The Green Open Space in the church courtyard is not just an additional element, but is part of the church's responsibility in carrying out environmentally friendly ecclesiology. Through RTH, churches can make a real contribution to maintaining ecosystem balance, strengthening congregational social relationships, and enriching spiritual experiences (Reno, 2024). Despite the challenges in its implementation, churches can adopt creative and innovative strategies to ensure that the existence of RTH remains a priority in efforts to preserve the environment.

Thus, the church can be more relevant in answering the challenges of the times and giving a real witness in caring for God's creation (Nainggolan, et al., 2014).

3. Challenges of Implementing Green Open Space in Churches

The challenges faced in the implementation of RTH in the church are the lack of enforced regulations and weak commitment in implementing related policies. Although legally there is a regulation that regulates the obligation to provide RTH in urban areas, as stated in the Regulation of the Minister of ATR/BPN No. 14 of 2021, its implementation in the church environment is still not optimal. One of the main causes is the lack of oversight and clear sanctions for religious institutions that ignore environmental sustainability aspects in their spatial planning. In many cases, churches do not feel obligated to allocate land to RTH due to the absence of effective control mechanisms from the authorities. In addition, bureaucratic constraints are also an inhibiting factor in the implementation of RTH policies in the church. Permit management, coordination with local governments, and limited access to reforestation programs are often obstacles to realizing green space in the church environment (Maimunah, et al., 2024). The lack of synergy between the church and the government in the provision of RTH has also slowed down efforts to realize an environmentally friendly ecclesiology. Churches that want to adopt this concept often do not receive technical support or incentives from the authorities, so many end up choosing to set aside reforestation programs in favor of other, more urgent needs.

In addition to regulatory and bureaucratic aspects, another challenge is the weak initiative of churches in creating green spaces as part of their identity and witness of faith. Many churches still view RTH as a secondary element that has neither theological nor functional urgency in congregational life. In fact, the presence of RTH at the worship location is a tangible action of the church's concern for God's creation and provides significant ecological benefits for the surrounding community (Arianto, 2024). The lack of awareness of this aspect causes the church to be more oriented towards pragmatic physical development, such as building expansion or the procurement of other facilities, without considering the impact on the surrounding environment. In addition, there are economic factors that also affect the church's limitations in implementing RTH (Sugiarto & Ramadania, 2024). Many churches experience budget constraints in managing green space, given that RTH maintenance requires additional costs for plant care, irrigation systems, and the workforce responsible for green space management. Under certain conditions, churches that have financial limitations prefer to allocate their budgets to more urgent church operational needs, such as building maintenance, social programs, and ministry activities. This situation is further exacerbated by the lack of participation of the congregation in supporting reforestation initiatives. If there is no collective awareness from the congregation to contribute to the management of RTH, the church will have difficulty in maintaining the continuity of this program.

Another challenge that also needs to be considered is changes in urban planning patterns and the needs of urban communities which are increasingly suppressing the existence of green spaces in the church environment (Aluman,

2024). In urban areas, where land is scarce and land prices are getting higher, churches often have to adapt to these conditions. Some churches in densely populated areas have had to compromise with the needs of congregations that focus more on parking facilities and multipurpose buildings rather than providing land for RTH. In addition, with the increasing number of private vehicles used by congregations, churches face a dilemma between providing adequate parking or allocating space for parks and vegetation. This is a complex challenge for churches in balancing the needs of the congregation with their ecological responsibilities.

To address these challenges, a more systematic approach is needed to integrate ecotheological principles into church policy. The church needs to play an active role in advocating for policies that support environmental sustainability as well as encouraging congregations to engage in reforestation initiatives collectively (Harefa, et al., 2024). One way that can be done is to educate the congregation about the importance of RTH in the perspective of the Christian faith. The church may hold seminars, workshops, or other educational activities to increase congregations' understanding of the relationship between faith and environmental sustainability. This approach aims to build a collective awareness that preserving the environment is not only the responsibility of governments or environmental activists, but is also part of the ecclesiastical calling to manage the earth in accordance with God's mandate in Genesis 2:15.

In addition to education, churches can also develop innovative strategies in providing RTH. For example, if land limitations are the main obstacle, the church can adopt the concept of a vertical garden or rooftop garden as an alternative solution. By utilizing green technology, churches can create green spaces in a limited area without having to sacrifice other needs that are considered essential. In addition, churches can also establish partnerships with local communities, local governments, and environmental organizations to obtain support in the form of resources, technology, and assistance in the management of RTH. Support from the congregation is also a crucial factor in the successful implementation of RTH in the church environment. The church can build a participatory culture by involving the congregation in reforestation activities, such as tree adoption programs, community service work to clean green areas, and collective management of prayer gardens. By involving the congregation in the planning and implementation process, the church can create a stronger sense of ownership of RTH, so that the sustainability of the program can be ensured in the long term.

From a regulatory point of view, the church can take proactive steps by encouraging the Government, which incidentally is God's representative for worldly government; for the implementation of a more assertive policy in the provision of RTH in the church environment. One way is to participate in public discussion forums about urban spatial planning and work with local governments in advocating for policies that support the construction of environmentally sound churches. The church can also initiate a dialogue with relevant stakeholders to design an internal policy that requires the provision of green space as part of the

church's sustainable building standards. Even for the urgency of saving the environment, the church can take provocative steps by conducting a campaign that pressures the Government to carry out its function in controlling the use of space, while fully realizing that this step can be a boomerang for the church itself if it does not do so according to the existing rules.

4. Green Open Space Implementation Strategy in the Church

In an effort to realize green ecclesiology, the church needs to take concrete steps in providing Green Open Space (RTH) as part of its ecological responsibility. Challenges such as limited land, lack of understanding of the congregation, and financial and bureaucratic constraints should not be an obstacle for the church to play an active role in environmental conservation. Therefore, a comprehensive strategy is needed so that the church can optimize the available space, educate the congregation, collaborate with various parties, and adopt green technology to create a more sustainable environment. A new paradigm that is accentuated by green ecclesiology, is the church educating itself, that the presence of RTH is a manifestation of ecological ethics. And to ignore the presence of the RTH in the church grounds is to automatically ignore the ethics of political theology as an example for the church to 'give what belongs to the emperor.

One of the strategies that can be applied is the optimization of existing space (Satria, et al., 2024). Many churches in urban areas have limited land making it difficult to provide large green spaces. However, innovative solutions such as vertical greening or the creation of small gardens can be effective alternatives. The use of the exterior wall of the church for vines or the use of hanging pots can create a green atmosphere without requiring much space. In addition, churches can also use less productive areas, such as the corners of the courtyard or the back of the church, to plant ornamental plants or trees that serve as shade. With this approach, churches can create functional green spaces even with limited land.

Another strategy that is no less important is education and environmental awareness campaigns to the congregation (Wanget, et al., 2024). The Church has a strategic role in building ecological awareness through teaching rooted in the values of the Christian faith. In this case, the church can host thematic sermons, seminars, and discussions that discuss the importance of protecting the environment as part of the call of faith. In addition, congregational activities such as reforestation service work, tree planting movements, or water conservation programs can be a tangible form of the church's commitment to ecology. Through a systematic educational approach, the congregation will come to understand more and more that environmental preservation is not only the responsibility of the government or environmental activists, but is also a concrete manifestation of faith that is responsible for God's creation. In the implementation of RTH, the church can also build collaboration with the community and the government. Cooperation with environmental organizations, academics, and local governments can provide benefits in the form of technical assistance, material assistance, and regulations that support the procurement and maintenance of RTH. Some churches have successfully built partnerships with government agencies to gain access to urban

greening programs, the provision of plant seeds, and assistance in green land management. In addition, churches can also work with local communities in efforts to empower the surrounding community, such as through urban agriculture programs or church gardens that involve local residents in the use of land to grow food crops or herbal medicines.

From a design perspective, the church is supposed to adopt the correct principles of architectural design that integrate environmental elements into the construction and renovation of the church building. For example, the existence of a prayer garden or reflection area surrounded by greenery can be a place for the congregation to pray and meditate in a cooler and more natural atmosphere. In addition, a design that considers natural ventilation and the use of environmentally friendly materials will help reduce energy consumption and create a more comfortable and healthy worship environment. The church can also design a landscape that allows rainwater infiltration to reduce the risk of flooding, while maintaining the balance of the surrounding ecosystem. Finally, the use of green technology is an important aspect of the RTH implementation strategy in the church. Water-efficient irrigation systems, such as drip irrigation or rainwater harvesting for watering plants, can help reduce water consumption in the maintenance of green spaces. The selection of plants that are adaptive to local environmental conditions, such as drought-tolerant plants or trees that have high pollution absorption, can also optimize the ecological benefits of RTH without burdening churches with high maintenance costs. Another innovation that can be applied is the use of renewable energy, such as the installation of solar panels on the roof of the church to meet the electricity needs in the operation of gardens or other church facilities.

CONCLUSION

It is realized that the beginning of the existence of church buildings in Indonesia has a design morphology that is not built according to professional planning principles, so it does not begin with the mindset of land carrying capacity as a starting point for planning and development. Such conditions are bound to become complicated in later eras, and this is confirmed when in the end urgency demands the Church to return to her theological values in saving the environment. The Church has an important role in the preservation of sustainability through the implementation of Green Open Space (RTH) as part of green ecclesiology. RTH in the church environment provides ecological, social, and spiritual benefits, such as improving air quality, reducing ambient temperature, and providing a space for reflection and interaction of the congregation. However, its implementation faces various challenges, including limited land, lack of congregational awareness, and lack of regulatory and financial support. To address these challenges, churches can implement a variety of strategies, such as optimizing available space, educating congregations about the importance of ecology, and collaborating with communities and governments in the procurement and maintenance of RTH. In addition, churches can also adopt correct architectural design principles and eco-

friendly technologies to support the sustainability of green spaces. By integrating the concept of ecotheology in congregational life, the church can be an agent of change in maintaining the balance of the ecosystem and providing an example for the general public. The implementation of RTH in the church environment is not only about preserving nature, but also as a manifestation of responsible faith that shares living space with other of God's creations.

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