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Integrative Concept of the Low-Carbon Cities with the Maqasid Syariah: A Review Analysis

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Abstract

The Low-Carbon Cities (LCC) strategy guides cities in their efforts to transition towards an environmentally friendly and sustainable future. Currently, there is insufficient research that directly combines the LCC and Maqasid Syariah. Maqasid Syariah encompasses the elevated aims and fundamental principles of Islamic law, encompassing the safeguarding of life, religion, intellect, progeny, and wealth. The objective of this study is to review the integration of the LCC with the concept of Maqasid Syariah. This study employs a review analysis that includes thorough literature searches and analyses. This study has identified several relevant topics that align with Maqasid Syariah, namely: (a) integration of LCC with Maqasid Syariah; (b) benefits of a holistic strategy; and (c) challenges and considerations in integrating the LCC with Maqasid Syariah. In conclusion, this study suggests a review analysis approach that combines the LCC with the notion of Maqasid Syariah, offers significant advantages, and carries substantial significance. To fully explore the benefits and problems of combining the LCC and the idea of Maqasid Syariah, this study recommends conducting further research and fostering teamwork.

Keywords: *low carbon cities, eco-friendly, human welfare, Maqasid Syariah, Islamic law*

1.0 Introduction

The Low-Carbon Cities (LCC) strategy guides cities in their efforts to transition towards an environmentally friendly and sustainable future. The framework offers a systematic structure for cities to evaluate their existing carbon emissions, establish aggressive reduction objectives, and execute plans and measures to attain these objectives. The LCC prioritises the incorporation of diverse sectors, including energy, transportation, buildings, and waste management, to establish a comprehensive strategy for diminishing greenhouse gas emissions and advancing sustainable urban development. Through the adoption of the LCC, cities may efficiently strategize and execute actions to reduce the impact of climate change, enhance air quality, optimise energy usage, and establish urban ecosystems that are both habitable and resilient.

Currently, there is insufficient research that directly combines the LCC and Maqasid Syariah. Maqasid Syariah encompasses the elevated aims and fundamental principles of Islamic law, encompassing the

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safeguarding of life, religion, intellect, progeny, and wealth. The LCC's primary objectives are to decrease carbon emissions and advance sustainable urban development. However, incorporating Maqasid Syariah would include taking into account the ethical and moral aspects of sustainability within an Islamic framework. Integrating the LCC with Maqasid Syariah entails analysing the compatibility between sustainable practices and Islamic teachings, including the duty of humans as caretakers of the Earth and the significance of conserving natural resources. Additionally, it may entail examining the ways in which sustainable urban development can enhance the welfare and overall satisfaction of individuals and communities, aligning with the goals of Maqasid Syariah.

The objective of this study is to review the integration of the LCC with the concept of Maqasid Syariah. Additional investigation and examination are required to comprehensively grasp the possible synergies and problems of combining the LCC with Maqasid Syariah, as there is currently a scarcity of studies in this field. One such approach is to perform interdisciplinary research that integrates environmental science, urban planning, and Islamic studies. This research aims to create a complete framework that considers both sustainability and Islamic principles within the context of low-carbon cities. This study can offer a thorough approach to sustainable urban development that conforms to Islamic principles and tackles environmental, social, and economic difficulties.

A review analysis approach that combines the LCC with the notion of Maqasid Syariah can yield numerous advantages. Firstly, it enables a holistic approach to sustainable urban planning that takes into account both the environmental and ethical aspects. By integrating sustainable methods with Islamic ideals, such as the responsible management of the Earth and the welfare of individuals and communities, it advocates for a more comprehensive and equitable shift towards low-carbon cities. Moreover, this integration has the potential to augment the involvement and active involvement of Muslim communities in sustainability endeavours, as it offers a structure that aligns with their principles and convictions. In the end, it promotes a more balanced and enduring urban setting that caters to the requirements of both the earth and its residents.

2.0 Brief Introduction of LCC and Maqasid Syariah

The LCC is a comprehensive and inclusive approach that incorporates multiple components and aims. These encompass sustainability concepts such as incorporation, execution, fairness, and capacity for expansion and duplication (Hunter et al., 2019), as well as economic, energy, social, living, carbon, environmental, urban mobility, solid waste, and water elements (Tan et al., 2017). The framework also highlights the importance of adopting a methodical approach to low-carbon development, as described in the manual for the Low Carbon City Development Programme (LCCDP) (The World Bank & DNV KEMA, 2014). However, recognising obstacles to achieving a low carbon status, particularly in China, is crucial. These obstacles include the requirement for more ambitious measures and governmental direction (Zhao et al., 2022; Wang et al., 2015). The establishment of low-carbon cities is emphasised as a crucial approach, encompassing the utilisation of novel energy sources, environmentally friendly procedures, sustainable urban design, eco-friendly construction methods, and the adoption of low-carbon lifestyles (Shen et al., 2018). Furthermore, the framework acknowledges the need to achieve a harmonious equilibrium among many sustainability goals, including the mitigation of greenhouse gas emissions, the enhancement of resistance to climate change, and the promotion of welfare (Caparros-Midwood et al., 2019).

Cities can take the lead in mitigating climate change, emphasising the significance of decreasing carbon emissions and advocating for sustainable urban development (The World Bank & DNV KEMA, 2014). Tan et al. (2017) have suggested a comprehensive framework for assessing and certifying low carbon emissions in cities. This framework takes into account economic, social, and environmental factors. Recognising ICT as a crucial facilitator of low-carbon development, intelligent policy formulation, and a concentration on enhancing urban climate change resilience are necessary (Jacob, 2018). Dai (2009) argues that in China, establishing low-carbon cities strategically diminishes carbon emissions and promotes sustainable development. However, a lack of specific delineation and inadequate supportive policies impede the efficacy of low-carbon city programmes in China (Khanna et al., 2014).

The five pillars of Maqasid Syariah, sometimes referred to as the aims of Islamic law, involve the safeguarding and advancement of essential aspects of human welfare. The pillars encompass the following principles (Asy'ari, 2022): (a) the protection of religion, by guaranteeing the freedom to practice and uphold one's faith; (b) the preservation of life, by upholding the sanctity and dignity of human life; (c) the safeguarding of intellect, by promoting the pursuit of knowledge and intellectual development; (d) the preservation of lineage, by fostering strong family ties and protecting marriage and parenthood; and (e) the protection of property, by

ensuring fair and just economic transactions while preventing exploitation. These pillars function as fundamental principles to establish a fair and equitable society following Islamic law.

The concept is organised into general, particular, and selected principles and classified according to the public interest as daruriyyat, hajiyyat, and tahsiniyyat (Ghazali, 2018) and is intricately connected to the process of legal decision (Sabir & Muher, 2021). Islamic finance has applied Maqasid Syariah in various fields, which is crucial for the advancement of Syariah banking products (Zaki & Cahya, 2016). Nawawi and Juandi (2020) have also employed the notion to formulate a progressive methodology for Islamic jurisprudence, highlighting the values of tolerance, comprehensive research, and the deterrence of radicalism. In the realm of Islamic economics, the concept of Maqasid Syariah plays a crucial role in promoting human well-being and contentment, as well as in devising both macro- and microeconomic strategies (Riyanto, 2016; Janah & Ghofur, 2018). Therefore, this study expects Maqasid Syariah to integrate with the LCC and promote a more sustainable environment through an all-encompassing approach.

Several studies have examined the ethical and moral aspects of sustainability within the framework of Islamic principles. Grine et al. (2013) and Hassan (2016) both highlight the significance of Islamic principles in advancing sustainable development, particularly in terms of fostering social equity, safeguarding the environment, and ensuring economic feasibility. Kalkavan et al. (2021) and Zilio-Grandi (2021) emphasise the importance of Islamic ethical ideals in economic endeavours and the preservation of the environment. Abdulrachman (2011) and Okour (2013) emphasise the significance of incorporating both spiritual and behavioural aspects into sustainable development, particularly concerning environmental values and ethics. Gulzar et al. (2021) and Bsoul et al. (2022) present a thorough examination of Islamic environmental ethics and their relevance to current environmental challenges, with a particular focus on the significance of education and community development. These studies emphasise the extensive ethical and moral structure inside Islam that can aid in achieving sustainable development.

Maqasid Syariah, the overarching goals and principles of Islamic law, and the concept of LCC share a common focus on sustainability, environmental stewardship, and community welfare. Similar to Maqasid Syariah's objective, which is to improve the well-being and advancement of individuals and society, LCC prioritises the mitigation of carbon emissions, the optimisation of energy usage, and the adoption of renewable resources to establish healthier and more sustainable urban settings. Urban areas can try to find a peaceful balance between economic growth, social justice, and environmental protection by combining the ideas of Maqasid Syariah with the goals of the LCC. This is in line with Islamic teachings and environmentally friendly methods.

3.0 Methodology

This study employs a review analysis that includes thorough literature searches and analyses. The literature search method encompassed various scholarly databases, such as Google Scholar, Scopus, and Web of Science. The criteria for selecting the reviewed articles were determined by their pertinence and significance to the topic. The analysis technique entailed employing a methodical methodology to classify and condense the primary discoveries, pinpoint the deficiencies in the current body of literature, and provide potential avenues for future research. The review technique employed in this paper meticulously and fully analyses and offers all pertinent findings about the integration of low-carbon cities with the Maqasid Syariah.

4.0 Results and Discussion

This study has identified several relevant topics that align with Maqasid Syariah, namely: (a) integration of LCC with Maqasid Syariah; (b) benefits of a holistic strategy; and (c) challenges and considerations in integrating the LCC with Maqasid Syariah.

4.1 Integration of LCC with Maqasid Syariah

The LCC and Maqasid Syariah have overlapping objectives and principles in advocating for sustainable development and mitigating carbon emissions. Rahman (2020) exemplifies the case of Malaysia, where the LCC seeks to effectively diminish carbon footprints while maintaining economic growth. This follows the focus of Maqasid Syariah on the responsible management of the environment and the promotion of sustainable development. Both frameworks also place a high value on the welfare of communities. The LCC specifically addresses the needs of urban growth (The World Bank & DNV KEMA, 2014), whereas Maqasid Syariah emphasises social justice and the well-being of individuals. The LCC’s strategy for low-carbon development,

characterised by a systems approach and a concentration on several goals (Caparros-Midwood et al., 2019), aligns with Maqasid Syariah's comprehensive perspective on human welfare. Both frameworks also stress the importance of connectedness and integration across many sectors (Cam, 2013). The table and figure below (Table 1 and Figure 1) simplifies the integration points of LCC with Maqasid Syariah:

Table 1: Integration Points of LCC with Maqasid Syariah

Integration Points	Low-Carbon Cities	Maqasid Syariah
Environment sustainability	• Effectively diminish carbon footprints while maintaining economic growth	• Responsible management of the environment and the promotion of sustainable development
Social urbanisation	• Addresses the needs of urban growth	• Emphasises social justice and the well-being of individuals
Criteria of addressing method	• Characterised by a systems approach and a concentration on several goals	• Characterised by a comprehensive perspective on human welfare
Connection and integration	• Connectedness and integration across many sectors	

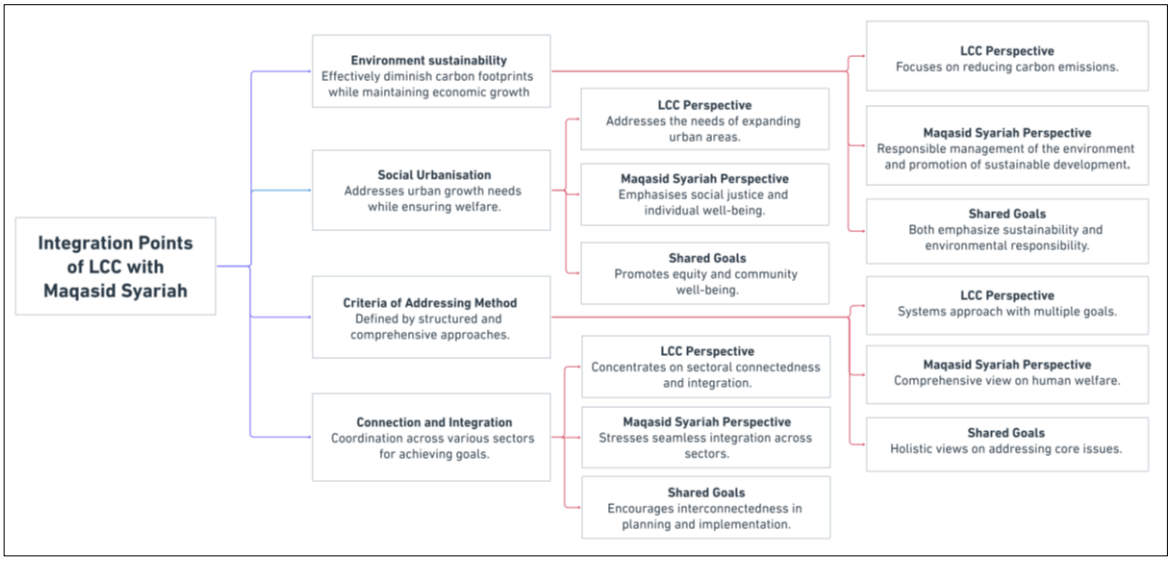

Figure 1: The Framework of Integration Points of LCC with Maqasid Syariah

The sustainable methods described in the LCC follow Islamic values of stewardship and resource conservation, specifically within the Maqasid Syariah. The principles underscore the significance of justice, public interest, and equality (Erwaedy et al., 2021) and are evident in the Islamic Corporate Real Estate Sustainable Management (I-CRESM) approach, which encompasses sustainable water usage, environmental preservation, and energy administration (Fauzi et al., 2021). Maqasid Syariah prioritises the conservation of human life, intellect, lineage, and property when examining the notion of sustainability in relation to light pollution (Faid et al., 2021). The Islamic viewpoint on sustainable development is based on a moral economy and society, incorporating values such as public interest, equilibrium, and moderation (Kamali, 2016). The Islamic legal principle of damage prevention, as exemplified by the maxim, is also indicative of a commitment to promoting global environmental sustainability (Nasir et al., 2022). The religion of Islam deeply ingrains environmental sustainability and enables effective tackling of present-day environmental challenges (Bsoul et al., 2022). The Islamic environmental ethics of syukur (thank God) and theocentricity advocate for the prudent utilisation of natural resources (Gulzar et al., 2021). Sustainable land use planning and development implement the concepts mentioned, following the guidance of the Quran and prophetic traditions (Maidin & Oseni, 2011).

Several studies have examined the capacity of sustainable urban development to improve well-being and quality of life following Maqasid Syariah goals. Caparros-Midwood et al. (2019) and Opschoor (2011) emphasise the necessity of adopting a multi-objective approach to urban design that can effectively tackle climate change, resource consumption, and well-being. Implementing low-carbon urban development methods is also significant, especially in rapidly urbanising areas such as Iskandar Malaysia (Gao & Zhang, 2020). Implementing these measures can effectively mitigate carbon dioxide emissions and foster a robust, environmentally harmonious ecosystem. Gouldson et al. (2018) and Jiang et al. (2015) present empirical support for the economic and social advantages associated with low-carbon cities. Additionally, they suggest specific planning and design approaches to effectively attain sustainable urban development and incorporate the principles of sustainability into city and regional planning (Wheeler, 1996). Furthermore, this framework enables the integration of the objectives of Maqasid Syariah into sustainable urban development.

Other than that, recent studies have investigated the connection between Maqasid Syariah and green, low-carbon cities, with a particular emphasis on examining individual case studies. Rahman (2020) emphasises Malaysia's dedication to decreasing carbon emissions and advocating for environmentally friendly and sustainable development. Griffiths & Sovacool (2020) examine the development of Masdar City in Abu Dhabi, highlighting the significance of sustainable urban planning. Sankaran & Chopra (2020) delve more into the notion of sustainable smart cities, employing Masdar City as a specific example for analysis. Nejatian et al. (2021) offer a fresh viewpoint on the concept of a green metropolis, specifically examining the correlation between alterations in vegetation area and air pollution in Mashhad, Iran. These studies emphasise the ability of Maqasid Syariah to provide information and direction for the creation of environmentally friendly cities with minimal carbon emissions. This is especially relevant for individual urban projects and initiatives.

4.2 Benefits of a holistic strategy

The integration of the LCC with Maqasid Syariah presents numerous benefits. The LCC, which prioritises the reduction of carbon emissions and the advancement of sustainable development, is following the Islamic ideals of environmental stewardship and social justice. The incorporation of LCC efforts can amplify environmental and social influence, as exemplified by the instance of Masdar City in Abu Dhabi (Madhu & Pauliuk, 2019). Additionally, it can enhance the durability and long-term viability of historical urban regions, such as early Malay towns (Mohamed et al., 2022). The Malaysian government's dedication to LCC highlights the possibility of merging it with Maqasid Syariah (Rahman, 2020). Integrating Islamic ethical standards (Zhou et al., 2015) can enhance the "driver-pressure-state-impact-response" (DPSIR) framework used for assessing low-carbon city efforts. Following Maqasid Syariah, the LCCDP guidebook and the integrated energy and environmental systems analysis methodology are useful tools for carrying out LCC efforts (The World Bank & DNV KEMA, 2014; Bhatt et al., 2010). Nevertheless, the long-term viability of LCC projects in China and the execution of low-carbon urban development policies in Malaysia underscore the necessity for a more all-encompassing and fair-minded strategy (Hunter et al., 2019).

The LCC advocates for a holistic strategy for achieving sustainable urban development, which entails tackling environmental, social, and economic obstacles comprehensively. The principles of integration, implementation, equity, scalability, and replicability should form the foundation of the method (Hunter et al., 2019). Furthermore, it should consider the potential and possibilities of low-carbon urban design (Chan et al., 2017) and be guided by a comprehensive low-carbon city indicator framework (Tan et al., 2017). Implementing the LCCDP can assist cities in overcoming obstacles and pursuing a comprehensive low-carbon trajectory (The World Bank & DNV KEMA, 2014). The creation of a framework for a low-carbon city indicator (LCCI) can enhance the assessment, execution, and uniformity of low-carbon cities (Tan et al., 2015). The implementation of a low-carbon eco-city concept is especially pertinent in swiftly urbanising nations such as China (Liu et al., 2018). Finally, sustainable urban development should include the integration of building rules, neighbourhood and site planning, building design, and support systems (Jiang et al., 2015).

4.3 Challenges and considerations in integrating the LCC with Maqasid Syariah

There are various obstacles and limits to integrating the LCC with Maqasid Syariah. These encompass the necessity for an all-encompassing strategy in urban planning that takes into account both environmental and social aspects (Juhari et al., 2019; Hunter et al., 2019). The insufficient focus on the execution of low-carbon plans in historical urban areas (Mohamed et al., 2022) and the requirement for a more methodical examination of environmental consequences in urban expansion (Madhu & Pauliuk, 2019) add more complexity to the integration process. In addition, Abdullah et al. (2022) emphasise the importance of implementing LCC strategies

through urban governance, while Zhou et al. (2015) highlight the assessment of low-carbon city projects using the DPSIR framework. The necessity of adopting a comprehensive and unified strategy in urban planning should take into account both environmental and socioeconomic aspects. Efficient governance plays a significant role in implementing low-carbon city initiatives.

Researchers can use an interdisciplinary approach to establish a comprehensive framework for LCC and Maqasid Syariah. Tan et al. (2017) and Su (2013) present indicator frameworks for assessing the life cycle cost. Tan's framework primarily examines carbon emissions in urban areas, while Su's framework combines synthetic and analytical evaluation methods. Hunter et al. (2019) and Romero-Lankao et al. (2018) highlight the importance of incorporating sustainability and a comprehensive comprehension of urbanisation, urban regions, and carbon in LCC activities. Rahman (2020) and Dai (2009) emphasise the significance of government-market-public partnership and the imperative of low-cost carrier development in Malaysia and China. Hasyimi & Azizalrahman (2018) present a framework for the development of low-carbon cities, encompassing tactics for the mitigation of carbon emissions. These studies emphasise the importance of developing a holistic framework that combines the environmental, economic, social, and governance components of LCC in line with the principles of Maqasid Syariah.

5.0 Conclusion

In conclusion, this study suggests a review analysis approach that combines the LCC with the notion of Maqasid Syariah, offers significant advantages, and carries substantial significance. By harmonising the principles of Maqasid Syariah, which prioritise the safeguarding of human welfare and the environment, with the LCC's emphasis on diminishing carbon emissions and advancing sustainable urban growth, a holistic strategy can be attained. The integration of these elements can result in various benefits, such as the establishment of eco-friendly cities that prioritise the preservation of natural resources, the advancement of social fairness and equality in urban planning and development, and the improvement of community well-being through sustainable economic expansion and enhanced quality of life. A thorough approach like this enables people to take responsibility for caring for and protecting the environment while ensuring adherence to the principles of Maqasid Syariah in pursuit of sustainable development goals.

To fully explore the benefits and problems of combining the LCC and the idea of Maqasid Syariah, this study recommends conducting further research and fostering teamwork. This involves undertaking thorough investigations to find areas of agreement and possible disagreements between the two frameworks, as well as comprehending the cultural, social, and economic settings in which they function. It is crucial to have the participation of specialists, policymakers, intellectuals, and stakeholders from both environmental and Islamic viewpoints to guarantee a thorough and all-encompassing approach. To effectively incorporate the concepts of Maqasid Syariah into the LCC, we may address potential problems and find innovative solutions by fostering debate and knowledge exchange. This collaborative approach enables the implementation of an integrative framework to develop environmentally and socially sustainable cities that adhere to the principles of Maqasid Syariah. This will result in significant benefits for both the environment and society at large.

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