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TOWARDS HARMONY IN THE CAPITAL OF THE ARCHIPELAGO: VISION OF FUTURE SUSTAINABLE CITY DEVELOPMENT FUTURISTIC-ORIENTED

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ABSTRACT

This research aims to explore and formulate a sustainable and futuristic-oriented development strategy for the capital of the archipelago that can integrate the principles of environmental, economic, and social sustainability in addition to utilizing sustainable advanced technology. This study employs an exploratory qualitative research methodology and descriptive study design. This approach is carried out by collecting and analyzing data in depth through a document study. This study uses data analysis techniques by making a SWOT analysis to assess the advantages, disadvantages, and opportunities faced during the development of the Indonesian capital. Thus, it can be said that the overall plan for development for the Indonesian capital is sustainable and futuristic using an integrated approach by applying ESG sustainability principles and the use of environmentally friendly technology. Urban development close to the 20th century was accompanied by the growth of urbanization processes without planning so cities experienced gradual inefficiency, which resulted in the erosion of old buildings that were unable to fulfill the requirements of society. Through the above policies, it's hoped that Indonesian capital will develop into a futuristic-oriented sustainable city by integrating the principles of ESG (environmental, social, and economic) sustainability using advanced, environmentally friendly technology. Recommendation formulation regarding the sustainable and futuristic-oriented development strategy for the Indonesian capital consists of Environmental Policy, Economic Policy, Social Policy, Planning and Supervision Policy, Technology Policy, and Collaboration and Participation for Sustainable City Futuristic.

KEYWORDS

IKN Nusantara, Sustainable city development, Sustainable city futuristic,

INTRODUCTION

Developed countries are trying to transform cities into green and sustainable metropolitan cities (Alyami, 2019; A et al., 2019; Gavrilidis et al., 2017). This causes challenges that must be faced in the form of growth, performance, competitive atmosphere, and sources of community income (Toli & Murtagh, 2020; Bouton et al., 2013). Environmental issues are crucial to the development of new cities. Ecosystem damage, pollution, and high carbon emissions are the results of development that is not environmentally friendly. Therefore, the construction of new capital should support environmental sustainability.

Sustainability includes three dimensions, namely, economic, social, and environmental (Lehtonen, 2004), where the environment is related to ecological aspects, conservation of flora and fauna, availability of natural resources, and energy production. The economic dimension contains heterogeneous economic activities and settlements. Meanwhile, the social dimension is related to community welfare and equality in all sectors of life (Toli & Murtagh, 2020).

In the century before the 20th century, the idea of smart cities had the character of science fiction. However, over time, computer devices have become more sophisticated, and artificial intelligence has begun to penetrate the digitization of all public services, making this possible. The opportunity to realize a smart city is getting bigger and closer to reality. A smart city is a city that makes itself smarter, sustainable, fair, and livable (Toli & Murtagh, 2020). Smart cities consist of instruments that are interconnected in various networks sourced from personal continuous data and supporting materials integrated with central data (Batty et al., 2012).

Disturbances facing cities throughout the world in the form of the COVID-19 pandemic, climate change, social inequality locally and globally, and rapidly growing populations can be potential disruptions to humanity's future because the future is unpredictable (Mohammadzadeh, 2024). Digital, smart, and sustainable projects are a proposal for a new era of development worth achieving prosperity. The nation's proposal for sustainable development is the sustainable and green city model (Alyami, 2019).

Indonesia is in a transformative phase in its development history with the creation of an island nation's new national capital (IKN). Relocating Jakarta's capital to East Kalimantan is a strategic step that is expected to distribute economic centers, reduce the burden on Jakarta, and present a model of a future city that is sustainable and futuristically oriented. East Kalimantan's North Penajam Paser and Kutai Kartanegara regions will house the new capital. East Kalimantan was chosen from all cities in Indonesia due to considerations of easy access to the location, proximity to the developed cities of Balikpapan and Samarinda, heterogeneous society, the minimal potential for conflict, a large airport and port, and adequate reservoirs and rivers (Ngadiman et. al., 2024; Saraswati & Adi, 2022).

Indonesia is an archipelagic country that has many challenges when building a new capital. The future capital of the archipelago needs to consider development standards by carrying out the concepts of sustainability and futuristic ideas. A city that is fair, efficient, and environmentally friendly by providing equal and broad opportunities for all people. So the concept of a new-era city will undergo a massive transformation process, for example, climate change and optimal use of existing resources combined with sophisticated technology.

The transfer of the country's capital was based on the IKN Law on January 18, 2022, with the decision to move from Jakarta to East Kalimantan. IKN moved from Jakarta to East Kalimantan for the following reasons: 1. future challenges that are aligned with the vision of Golden Indonesia 2045, with the aim of Indonesia becoming a strong economy in the top 5 in the world; 2. inclusive economic growth and equality in all regions of Indonesia; and 3. Jakarta will no longer be able to hold the title of IKN of the future (Habibie, 2022).

The new IKN is a new form of civilization that requires synergy and collaboration from various parties. Advances in science and technology (Science and Technology) mean that transformative, smart, and sustainable IKN plans are expected to be achieved in the future. The Golden Indonesia Vision 2045 requires a strong commitment from Indonesian citizens because it shows the vision and mission as well as the nation's hopes for the future.

The capital of the archipelago was selected as the new capital because of the unequal socio-economic and population distribution. The population on Java Island is around 57.4%, Sumatra Island around 17.9%, Bali and Nusa Tenggara around 5.5%, Kalimantan around 5.81%, Sulawesi 7.31%, and Maluku and Papua 2.61%. The agglomeration of development and high progress has made Java the center, leaving other regions lagging. Therefore, the national capital needs to be moved to overcome emerging problems such as pollution and ecological burden on the national capital (Aji et al., 2023; Mazda, 2022).

The new IKN is a new form of civilization that requires synergy and collaboration from various parties. Advances in science and technology (science and technology) mean that transformative, smart, and sustainable IKN plans are expected to be achieved in the future. The Golden Indonesia Vision 2045 requires a strong commitment from Indonesian citizens because it shows the vision and mission as well as the nation's hopes for the future.

The archipelago's capital is a symbol of progress and Indonesian identity. The archipelago serves as the center of government and as a symbol of the implementation of sustainability and continuous innovation. In city development with renewable technology, resources are used effectively and appropriately. The cultural and historical identity of the archipelago's capital is maintained as the center of Indonesia's development. respect for the nation's cultural heritage, the creation of public spaces to preserve arts and culture, and the promotion of local culture, making the city an economic, political, and social center.

The IKN theme has been the subject of intense debate in recent years. Since the Draft Law on National Capital (RUU) was issued and ratified on January 18, 2022, in Law No. 3 regarding the National Capital, the controversy regarding the New National Capital has become increasingly clear about the pros and cons that arise. Indonesia has an important role in the world because it has abundant natural resources, is rich in arts and culture, and has ethnic diversity that is widely spread throughout Indonesia. Rapid economic and infrastructure progress has strengthened Indonesia's position in the global market. However, urban, environmental, and social issues need extra attention from stakeholders.

The master plan for development contains inclusive and sustainable principles and encourages equality in Indonesia's territory. The concept of Smart, Green, Beautiful, and Sustainable in the National Capital will have the opportunity to be achieved by understanding the social, economic, and cultural characteristics of its population (Sutanto, 2022). The concept of green investment is a solution that will align with the development direction of East Kalimantan in the form of a green economy (Aprianti et al., 2023). Green investment is capital investment for environmental, social, and economic purposes (Hartono et al., 2020).

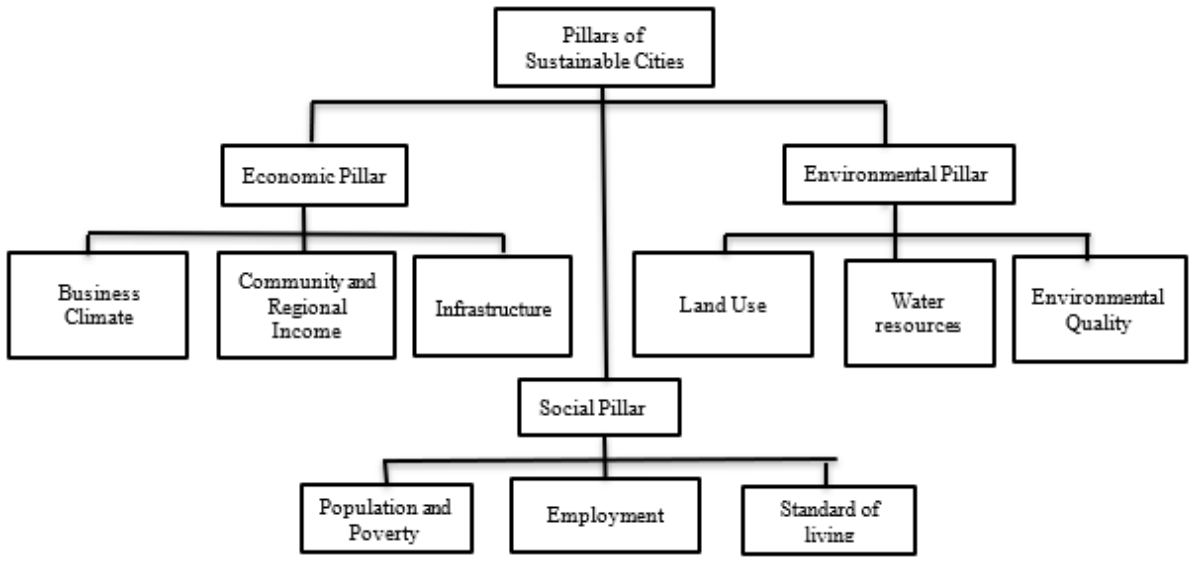
The problem formulation in this study is: How to formulate a sustainable and futuristic-oriented development strategy for the capital of the archipelago that can integrate the utilization of advanced technology that is sustainable in terms of the environment, economy, and society? This research aims to explore and formulate a sustainable and futuristic-oriented development strategy for the capital of the archipelago that can integrate the principles of environmental, economic, and social sustainability as well as the use of sustainable advanced technology.

LITERATURE REVIEW

This literature review aims to review concepts and empirical studies that are relevant to sustainable and futuristically oriented city development. This study will include literature on environmental, economic, and social sustainability, smart city technology, and case studies of cities implementing sustainability globally. Because national capitals are so complex in terms of their structure and functions, moving them is a very difficult task in developing nations. Any lessons learned from past relocation projects may need to be taken into consideration (Satria et al., 2023).

A capital city is not the same greatly from other types of cities. The presence of foreign diplomatic missions, governmental organizations, and a wide range of public sector economic opportunities make the capital cosmopolitan. Thus, a nation's center of power is, in theory, its capital of the nation. A cohesive and integrated national identity influenced by particular infrastructure and functions like government policy-making, service centers, and high security are other traits of national capitals (Ghalib et al., 2021; Neilson et al., 1972; Satria et al., 2023). Sustainable cities can manage their energy through waste that is managed into energy sources, environmentally friendly transportation, maintaining green spaces, and well-managed natural resources. The concept of a sustainable city should involve economic, social, and environmental aspects. Sustainable cities can satisfy present demands without sacrificing those of coming generations.

The form of a sustainable city is summarized by the World Commission on Environment and Development (1997), which includes the following: a. having awareness of resource use and reducing activities' detrimental effects on nature; b. The responsibility of sustainable cities falls into the regional and global realm; c. individual responsibility towards the city is broad in nature. d. Environmental assets are allocated evenly; e. A sustainable city is knowledge-based, communal, and has a global network of cooperation; f. Observing the natural world and protecting the environment; g. Having the opportunity to strengthen environmental quality on a local, regional, and global scale (Ervianto, 2018).



Source: Apriyanto et al., (2015)
Picture 1. Three Pillars of Sustainable Cities

Information and communication technology (ICT) is used in smart cities to improve public services, divulge data to the public, increase operational efficiency, and raise the standard of living for

citizens (Harrison et al., 2010). Therefore, it requires a high-speed internet network and technological infrastructure to support digital-based public services (Portmann, 2015). Intelligent transportation systems that support community mobility are available, for example, public transportation integrated with sophisticated technology (Geels, 2012). For community mobilization, environmentally friendly technologies and renewable energy sources are available (Goulden et al., 2014).

RESEARCH METHODS

This research aims to explore and formulate a sustainable and futuristic-oriented development strategy for the capital of the archipelago that can integrate the principles of environmental, economic, and social sustainability as well as the use of sustainable advanced technology. Qualitative research is used in this study and its exploratory and descriptive study designs. This approach is carried out by collecting and analyzing data in depth through a document study. Getting a thorough grasp of the context is the goal and dynamics of new city development. Data collection is carried out through documents that support analysis, in the form of government policies, development plans, and academic publications related to sustainable cities. Through the available documents, it is hoped that there will be an understanding of the policy framework that has been determined, the regulations that cover development activities, and case studies of sustainable cities in other countries that have been implemented.

This study uses data analysis techniques by making a SWOT analysis (Strengths, Weaknesses, Opportunities, Threats) to assess the strengths, opportunities, and threats faced during the development of the Indonesian capital. Data triangulation was also carried out to compare findings from various data sources to ensure the validity and reliability of research findings. It is anticipated that the findings of this study will using comprehensive research methods can make a significant contribution to the planning and implementation of sustainable, harmonious, and futuristic development in the Indonesian capital city.

RESULTS AND DISCUSSION

Sustainable and futuristically oriented development strategy requires long-term planning, large investments in green infrastructure, adaptation to climate change, transformation of water areas, raising the standard of living, and the use of advanced technology. A holistic approach and community engagement also play a crucial part in this strategy's success. The application of environmental, economic, and social sustainability principles can be achieved through projects that prioritize green infrastructure, smart water management, and environmentally friendly public spaces. Technology plays a crucial role in supporting sustainability based on renewable energy as well as environmentally friendly transportation infrastructure. Active community involvement in project planning and implementation increases the acceptability and long-term sustainability of implemented initiatives.

Expert opinions about smart cities, sustainable cities, environmentally conscious cities, and smart communities are increasing. The opinion is that sustainable urban regeneration methods are the most recent and comprehensive method used in several studies. The research aims to find components and processes that influence the regeneration of non-functioning tissue, which will have a sustainable impact in the future (Izadfar & Izadfar, 2021). Since the early 1990s, Urban planning and design have started to use sustainable development and sustainability concepts. This idea is for a desirable urban condition that has environmental protection, economic development and regeneration, social equality, and all aspects of life. Sustainable urban development that is strategy will be used to accomplish this (Bibri & Krogstie, 2017).

One country that implements urban sustainability as an example in this study is Copenhagen. Copenhagen has comprehensively adopted economic, social, and environmental sustainability. The European Green Capital Award (2014) provides recognition for a city that has successfully implemented economic, social, and environmental sustainability. Copenhagen's vision is to achieve zero emissions by 2025. The initiatives undertaken to achieve the vision of urban sustainability are:

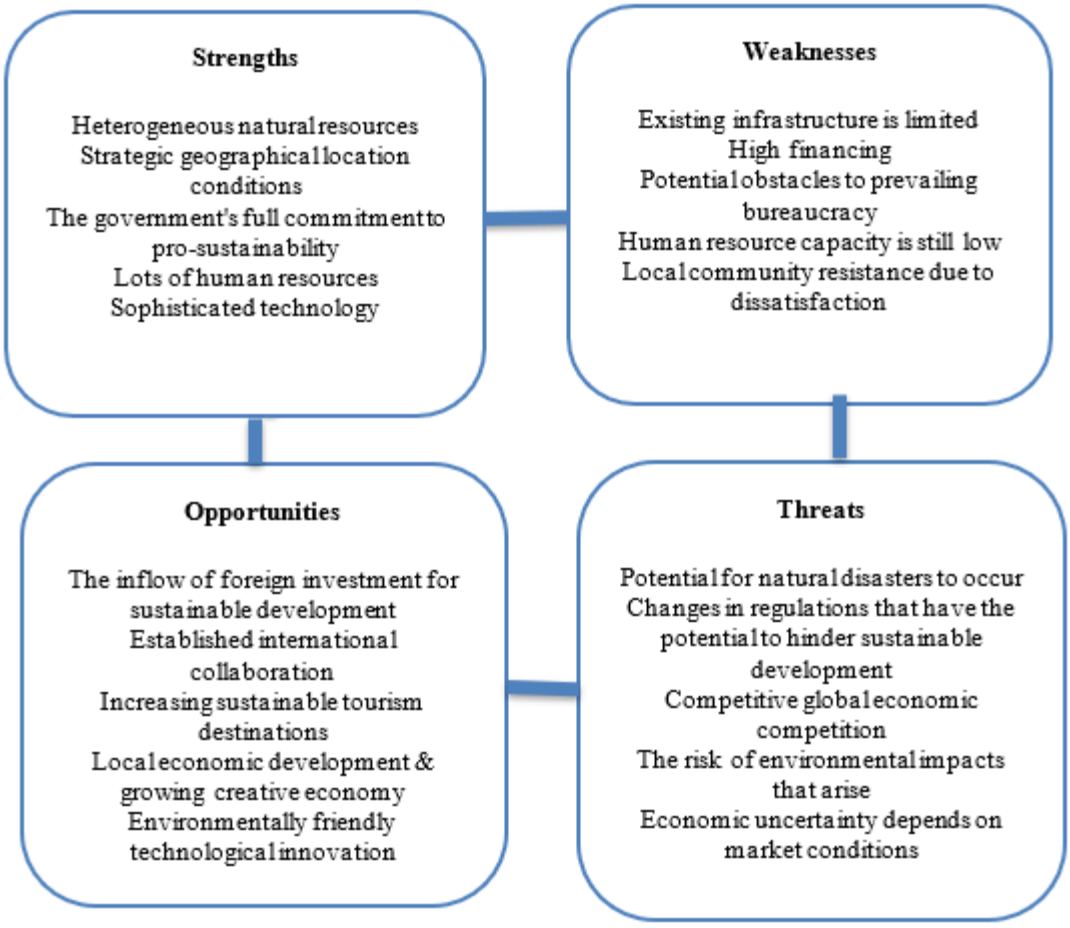
1. A bicycle-friendly city program (Copenhagen) to minimize pollution and ensure the health of citizens, as well as a mode of public transportation that supports the mobility of all its citizens.
2. Maximum utilization of wind energy. Retrofit (adding or complementing additional technology to the old system) with the aim of energy efficiency and reducing carbon emissions.
3. A water and environmental management system to clean the city port has added value for increasing regional tourism.
4. Sustainable waste management and recycling of materials to reduce waste and rubbish produced

The plan for the capital of the archipelago as a futuristic city must have the following characteristics;

1. Sustainable infrastructure innovation
2. Use of renewable energy
3. Smart and environmentally friendly public transportation
4. Environmentally friendly city design
5. Emphasis on ecological balance
6. Sustainable and inclusive living
7. Empowerment of local communities
8. Integration of culture and technology
9. Strong private and public involvement
10. Green cities and open spaces
11. Waste management and recycling
12. Digital connection and accessibility
13. Education and innovation

The vision of a sustainable city is the idea behind the growth of the capital of the archipelago, namely, a vision for the future that carries an environmentally friendly concept with a focus on conservation and sustainable use of natural resources. Green city design with protected forest areas, large green open spaces, as well as the utilization of renewable energy. The new city is a center of innovation equipped with digital infrastructure and advanced technology that can increase efficiency and quality of life. Digital-based public services are the main pillars due to the use of advanced, environmentally friendly transportation and the Internet, which is easily accessible to people from anywhere. City planning is designed by taking into account the comfort of the community because of the social integration that exists in synergy between stakeholders. Public facilities, which are people's rights, are fulfilled as a form of equitable public service.

The following is an analysis summarized from various reference sources outlined in the form of a SWOT analysis for a sustainable and futuristic-oriented development strategy for the capital city of the archipelago, as follows:



Source: Processed data

Picture 2. SWOT analysis of sustainable and futuristic-oriented development strategy

By combining a smart transportation system, reducing greenhouse gas emissions, reducing traffic jams, and maintaining the stability of the natural balance, all aspects are synergized. Apart from that, smart and connected infrastructure will create efficient energy management. By considering these matters of concern, it is hoped that a futuristic city will be created and enhance the inhabitants' standard of living.

Learning from countries advanced in innovation will help find a vision for the future and plan for change and risk mitigation. Sustainable and long-term work plans are used to build future structures. Planning changes and reducing risks is part of the city's preparation for the future. Sustainable and long-term work plans are used to build future structures. Several international institutions estimate that Indonesia will become a large country in 2045. This is homework for the Indonesian people to make it happen. Thus, moving the capital is the most likely step to achieve the nation's ideals. As the location for the new IKN, Kalimantan is expected to enable optimal economic turnover and equality throughout Indonesia.

Following the Capital City Bill, the Indonesian Capital City (IKN) is designed to be a National Economic Superhub (Superhub Nusantara). The aim is to generalize national development between the Western and Eastern regions of Indonesia, which consist of six economic clusters and two supporting clusters. Economic clusters include clean technology industry clusters, integrated pharmaceutical clusters, sustainable agriculture clusters, ecotourism and health tourism clusters, chemical and chemical

derivative product clusters, and low-carbon energy clusters. The supporting cluster consists of the 21st-century education cluster, smart city, and Industry 4.0 center. The role of each city is divided into the capital and its supporting pillars. IKN will be the hub of green innovation and the central government area Samarinda serves as East Kalimantan's historical hub for the renewable energy industry. In East Kalimantan, Balikpapan is a muscle that serves as a downstream node for oil and gas and logistics. East Kalimantan is a lung that will strengthen upstream agriculture and be a natural tourism center. Eastern Indonesia's development is the result of cooperation among all its regions.

The application of IKN to become a Superhub means that Superhub is a universal inspiration (in general) because it is a model of a green city, sustainable living, shows a high standard of living with various challenges of climate change and uses technology. Relationships between Superhub and the rest of the world facilitate trade, investment, and technological advancement, and Indonesia is in a more advantageous position.

Superhub and Indonesia's relationship: Superhub will change the Indonesian economy to be more inclusive through the Three Cities strategy by becoming an economic driver for East Kalimantan, Indonesia, and all of Indonesia. IKN was constructed with the admirable goal of realizing Indonesia's 2045 vision of becoming a developed nation. IKN, which caused IKN to alter its development orientation because it was constructed as a national identity to become Indonesia-centric and accelerate Indonesia's economic transformation.

Indonesia can become a sustainable future leader for future generations through the vision of developing an innovative and sustainable capital city of the archipelago. Cities that combine sustainability and humanitarian values by harmonizing technology and considering the environment will support social inclusion and strengthen the country's identity. By building cooperation with various parties and taking responsibility together, achievements will become easier to achieve and the concept of cooperation will be visible. The identity of the Indonesian nation since the kingdom era has been manifested in the communicative life of an advanced society. Future generations will benefit from the work of the present generation as they carry out the dreams of their predecessors to maintain the balance of nature. Then a future city (futuristic smart city) that is sustainable and environmentally friendly can be created.

Throughout the world, several projects to develop smart cities or environmentally friendly futuristic cities have become trending topics. The concept of a smart city refers to a city that uses information technology to integrate all government facilities and services for its citizens. Problems related to various aspects such as energy and construction, traffic, environment, medical care, agricultural, forestry, and fisheries sectors are optimized into useful resources. A sustainable city network is an idea that considers all aspects of existing resources and optimizes them as a whole to be able to solve various problems. A world-class, sustainable city is safe, affordable, and in harmony with nature. A city that is expected to reduce waste and be environmentally friendly is a low-carbon city. Kalimantan is considered appropriate because it is said to be the lungs of the world.

There are many problems faced in building a smart city, such as a maintained living environment, smooth transportation, and traffic, good medical care, industry, agriculture, forestry and fisheries, buildings, and households. The picture of sustainable city network connectivity focuses on the environment and environmental problems that occur (Kutami et al., 2014). Smart cities can cope with change through proper reorganization with a long-term, sustainable approach. This attempts to lessen the adverse effects faced by exceeding the capacity faced by cities and urban design following city growth (Bibri & Krogstie, 2017).

How do you overcome existing challenges? Creating a futuristic and sustainable city is a real effort that can be made. These concrete actions are as follows:

1. Space and infrastructure planning actions that can be taken:
   a. Efficient and sustainable space planning, wise use of land, development of green areas, and open spaces for the community.
   b. Preparing environmentally friendly infrastructure such as efficient public transportation networks and safe bicycle and pedestrian paths.
2. Renewable energy-produced actions that can be taken:
   a. Pay attention to renewable energy sources like biomass, wind, and solar energy.
   b. Building energy infrastructure that allows cities to generate their energy and reduce their dependence on fossil energy resources.
3. Smart technology actions that can be taken are: utilizing information and communication technology to increase city efficiency, for example, smart traffic management systems, smart waste management sensors, and connected electricity networks.
4. Prepare green buildings. Actions that can be taken: Establish strict green building standards for new construction and renovations. Including environmentally friendly building design, the use of recycled materials, and energy-saving systems.
5. Water and waste management actions that can be taken are;
   a. Consider efficient water management strategies, such as rainwater collection and water recycling systems.
   b. Invest in innovative waste management technology to reduce pollution and minimize waste generation.
6. Smart City Actions that can be taken are;
   a. Building digital infrastructure that allows cities to function more efficiently and enable better public services.
   b. Use and improve decision-making in many ways of city life, such as transportation, energy management, and health services.
7. Community participation actions that can be taken are;
   a. Involving the community in the planning process and decision-making through participatory forums, opinion polls, or public consultations.
   b. Support community initiatives to contribute to urban sustainability through recycling campaigns or tree-planting programs.
8. Collaboration between institutions and the private sector actions that can be taken are: establishing alliances between non-governmental organizations, the commercial sector, and the government to support sustainable urban development. These are some real and reasonable actions for the government to implement that can be used as input for the sustainable development of future cities.

We hope that by moving the capital, the environment can be better maintained. IKN Nusantara is intended to be a premier smart city in the world. As a city of the future, IKN will have green buildings and green infrastructure, which has become a city planning plan. The development of new technology is also carried out through an integrated research center, as the city of the future will form a new value structure for society, for example, the values of motivation, creativity, innovation, and discipline.

Cultural reform is better formed due to cultural acculturation. Kalimantan is unique and different from previous cities. The geostrategic aspect of moving IKN from Jakarta to East Kalimantan gives Indonesia strategic depth in government governance. Strategically, Kalimantan has an area six times the size of the size of the island of Java. Making the attention of the defense industry cluster necessary to be integrated.
The geostrategy in question is:

1. Development planning for the IKN region consists of the Main Central Government Area (KIPP), National Capital Area (KIKN), and National Capital Supporting Area (KPIKN), consisting of an ecosystem of three cities, namely IKN, Samarinda City, and Balikpapan City.
2. Location of IKN Nusantara from the perspective of land, sea, and air defense.
3. Kalimantan Island is a location and route for transnational crime, such as human trafficking, drugs, and others.
4. IKN Nusantara's position is surrounded by the defense alliance of Malaysia, Australia, the UK, the USA, and China.

It is hoped that the real conditions in Kalimantan will provide valuable insight into the movement of the national economy which is evenly distributed throughout the archipelago, and is supported by land, sea, and air transportation infrastructure. To realize the noble ideals of building IKN Nusantara can be achieved. Sustainable city development that has pollution-free access and does not damage the environment can be achieved. Successful and sustainable cities of the future depend on environmentally friendly technologies as a result of scientific innovation and sustainability research. Integration of environmental, economic, and social sustainability principles additionally the sustainable use of advanced technology is the main key to achieving this goal.

CONCLUSION

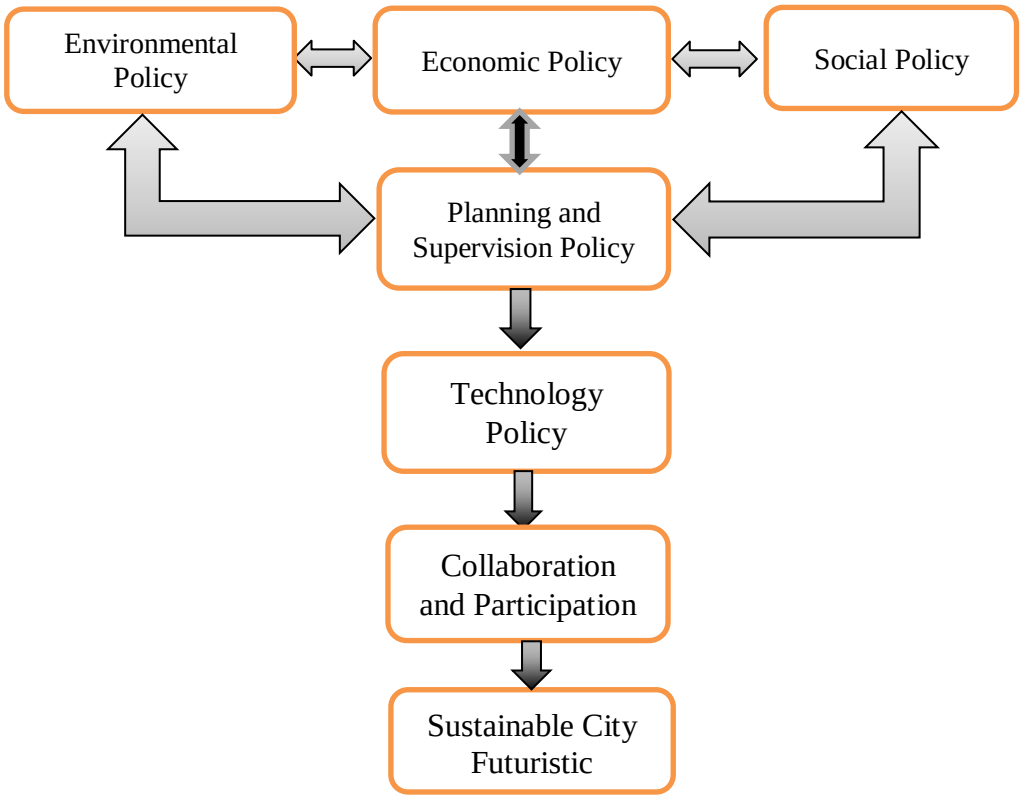
The conclusions that can be drawn from the above study are as follows: Sustainable development strategies require the integration of sustainability principles into ESG aspects. Minimizing negative impacts on the environment so that natural balance is maintained. The vision for Archipelago Capital is long-term because it needs to prepare for a sustainable future for Golden Indonesia in 2045. Inclusive and sustainable economic development as well as new environmentally friendly and technology-based economic sectors need to continue to be developed. Advanced sustainable technology based on artificial intelligence (AI) and green technology for use in IKN Nusantara. Coordinated efforts to realize Golden Indonesia 2045 and the Sustainable Development Goals, which were prepared from the outset of the Archipelago Capital City's development.

Thus, it can be concluded that cities are likened to living creatures that experience various physical, social, economic, environmental, and other changes over time. Cities gradually became less efficient as a result of the growth of urbanization processes without planning that accompanied urban development at the end of the 20th century, which resulted in the erosion of old buildings that were unable to meet the needs of society. It can be concluded that the overall development strategy for the Indonesian capital is sustainable and futuristic using an integrated approach by applying ESG sustainability principles and the use of environmentally friendly technology.

LIMITATIONS AND SUGGESTIONS

Policy recommendations;

Based on the problem formulation regarding the sustainable and futuristic-oriented development strategy for the Indonesian capital, the following are policy recommendations that can be implemented:



Picture 3. Recommendation formulation regarding the sustainable and futuristic-oriented development strategy for the Indonesian capital

1. Environmental Policy:
   a. Utilizing renewable energy sources for city infrastructure, such as biomass, wind, and solar power;
   b. Efficient waste and recycling management to minimize environmental impact;
   c. Green city development with the target of green space and city parks to obtain good air quality;
   d. Preparing environmentally friendly transportation, for example, electric buses and safe bicycle lanes.
2. Economic Policy:
   a. carrying out research that produces rapid innovation and technology to produce a green economy;
   b. supporting MSMEs to increase local economic growth to achieve inclusive economic growth;
   c. establishing a circular economy model so that resources are optimally utilized and waste generated from activities carried out.
3. Social Policy:
   a. Equal access to quality education for the entire community;
   b. Equal access to health services and social welfare programs for the community;
   c. Increase community participation during the process of making decisions and create inclusive policies for the entire community.
4. Planning and Supervision Policy
   a. Make long-term plans with the integration of sustainability principles in development;
   b. Establish an independent monitoring body to monitor policy implementation and measure compliance with sustainability standards.
5. Technology policy:
   a. Building an integrated digital infrastructure that supports smart cities;

b. Creating regulatory products that can protect the confidentiality of public data when using advanced technology;
c. Smart city adoption in the form of AI-based management for public services.

6. Collaboration and participation
   a. Increasing collaboration between the government, private sector, academics, and society in creating sustainable innovative solutions;
   b. Involving the community in planning and decision-making in discussion forums and digital platforms

Through the above policies, it is hoped that the Indonesian capital will develop into a futuristic-oriented sustainable city by integrating the principles of environmental, social, and economic sustainability using advanced, environmentally friendly technology.

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