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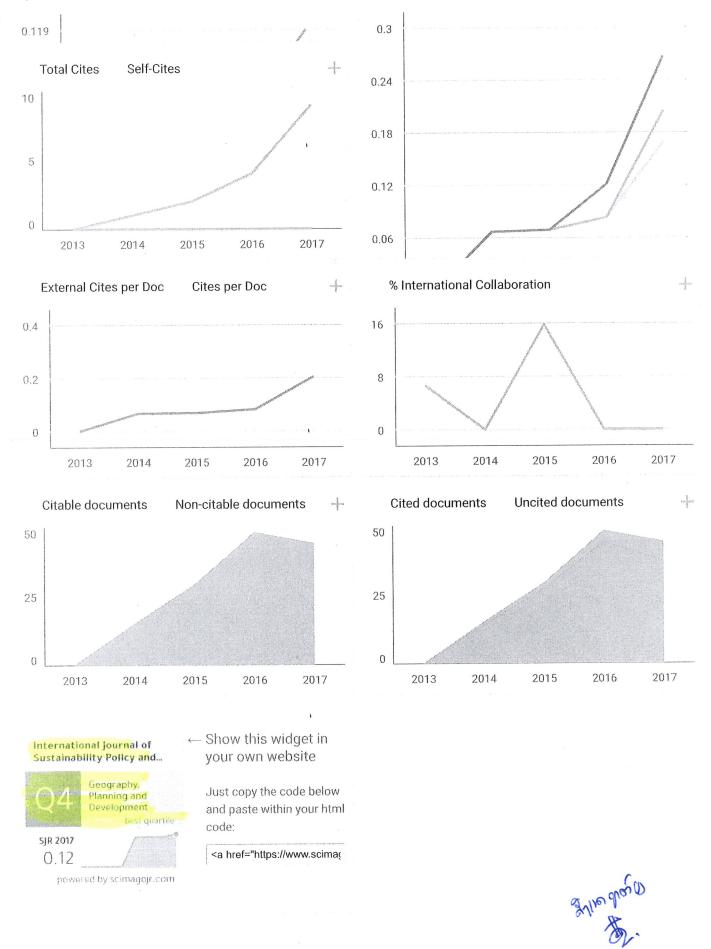
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Moving from Policy to the Implementation and Management of Government Organizations for Clean and Green City Concepts in Malaysia

THONGPHON PROMSAKA NA SAKOLNAKORN



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# Moving from Policy to the Implementation and Management of Government Organizations for Clean and Green City Concepts in Malaysia

Thongphon Promsaka Na Sakolnakorn, Silpakorn University, Thailand

Abstract: The aim of this article is to explain the management and implementation of a clean and green city concept in Malaysia. Specifically, we explain that the clean and green city concept is a subconcept of sustainable development and that it entails a balance among society, the environment, and the economy, so the concept has complicated the national plan. Malaysia's government uses political machinery to pass policies on to local governments so that they can work on and manage them locally. However, the law is very important in changing people's behaviors; therefore, the government must act rigorously and equitably so that Malaysia can soon develop clean and green cities. In addition, for long-term success, the government must focus on educating youth and students to make them aware of the clean and green concept. Maintaining a clean and green city will help with improving people's health, preserving the environment, promoting tourism, attracting investors and companies, creating more employment opportunities, producing more public space for people, and imparting good qualities among individuals for future generations.

Keywords: Clean and Green City, Urban Development, Malaysia, Development

# Introduction

In Malaysia, greenhouse gases come mainly from urban development, which accounts for nearly 50 percent of emissions. The industrial sector is responsible for 19 percent, deforestation for 17 percent, and agriculture for 14 percent. In addition, carbon dioxide (CO<sub>2</sub>) is the most important anthropogenic greenhouse gas (GHG), and the main source of atmospheric CO2 is the burning of fossil fuels, which has accounted for 75 percent of the increase in atmospheric CO2 since industrial times in Malaysia (United Nations Human Settlements Program 2011). Furthermore, a report by the World Bank Group (2017) explained that CO<sub>2</sub> emissions in 1970 were 1.352 metric tons per capita and in 1980 CO<sub>2</sub> emissions increased to 4.353 metric tons per capita, but by 2000 CO<sub>2</sub> emissions were 4.033 metric tons per capita, so the rate of CO<sub>2</sub> was decreasing. However, in 2010, CO<sub>2</sub> emissions in Malaysia increased to 4.828 metric tons per capita and the increasing trend continues. Therefore, the trend effect for Malaysia should be a solution to this problem. Environmental management in Malaysia started in 1974 under the national environment policy, climate change policy, and the National Environmental Quality Act of 1974, which were created by the Ministry of Natural Resources and Environment. The ministry is responsible for policies regarding environmental and climate changes and for implementing environmental programs or projects that benefit the global environment (Mokthsim and Salleh 2014). The clean and green city concept is related to environmental sustainability and can be used to address Malaysia's future prosperity and the long-term goal of creating sustainable Malaysia cities.

Protecting the environment for our future generations is the basis of the 1 Malaysia Green and 1 Malaysia Clean (1MG1MC) program, which was announced in 2010 to instill a cleanliness mindset among Malaysians to maintain the cleanest cities, malls, taxis, etc. In addition, the campaign includes a tree-planting project to keep cities green (ETB Travel News 2012). The

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Action Plan for a Beautiful and Clean Malaysia (ABC Plan) was established in 1988 with the aim of producing a national uniform municipal solid waste system that is productive, environmentally sound, and socially acceptable in Malaysia by 2020. Since the campaign was launched, more than 40 percent of new buildings in Malaysia have been designed and constructed with various degrees of eco-friendliness, motivated by tax incentives and other benefits for home owners provided by Malaysia's government. Companies and developers have incorporated energy-saving and recycling technologies into their buildings (Clean Malaysia 2016).

Malaysia's ABC Plan aims to raise awareness of Malaysia as a natural beauty; for example, it seeks to clear rubbish from the roads, walkways, and rivers; keep public toilets clean; use low-emission taxis and public transportation; and use clean energy with the goal of sustainable development by taking Malaysia's environment into consideration.

The concept of green growth aims to implement environmental protection, because it is the general impression that a positive relationship exists between economic growth and environmental protection. Green growth is a matter of economic policy and sustainable development policy. It has emerged as a new approach by which to reframe the conventional growth model and by which to reassess many of the investment decisions in meeting energy, agriculture, and water needs, as well as the resource demands of economic growth. For example, George Town in Penang used zero waste and 7R (rethink, refuse, reduce, reuse, repair, recover, and recycle) programs, and it has been voted as one of the cleanest cities in the Association of Southeast Asian Nations (ASEAN) region (Boon 2018). Similarly, Kuching city in the state of Sarawak is also known as one of the cleanest cities in Malaysia (Ten 2017).

The urban ecological system is an essential element for human survival in cities (Bolund and Hunhammar 1999). Human beings want to live in a clean and healthy environment. People not only keep their residences clean, but they pay the local government assessment rates to ensure they have the adequate infrastructure and workers to keep cities or towns clean, pleasant, and attractive. Making the cleanest cities does not just lie in the hands of the local authorities; we must improve our citizen mindset and work hand-in-hand with the local government to ensure local environments are successfully cleaned (Lee 2017). Sustainability of cities is a balancing act between cities and their environments with design that balances environmental value, resource consumption, and compensatory systems (Haughton 1997). Malaysia is the country in Southeast Asia that is most focused on sustainable development, incorporating clean and green concepts in its development process. The purpose of this article is to explain Malaysia's implementation of the clean and green concept in urban areas and how government efforts to encourage the clean and green concept boost local economies.

# Clean and Green City Concept

"Green" is a descriptor for renewable, environment-friendly energy sources. On the other hand, "clean" is an alternative descriptor likely to generate confusion and to diffuse the impact of informational and promotional materials designed to affect consumer behavior regarding renewable energy (Keramitsoglou et al. 2016). It is promoted as increasing people's understanding, affecting the participation of people in society, and making them able to work together (Goswami 2018). Knowledge of the environment is dynamic (Ebanda et al. 2018) and can improve and develop many projects or policies, but the core of the green concept is related to environmentally friendly policies, a green economy, or green entrepreneurship, and allocation is socially optimized to sustainable development (Relja et al. 2016). The "go green" concept emphasizes the relationship between a person's awareness, attitude, and levels of education and knowledge (Che et al. 2016). The clean and green city is part of the sustainable development concept, so the concept of a clean and green city focuses on a balance between natural resources and people's quality of life (Lindfield and Steinberg 2012; World Bank Group 2012). By focusing on natural resources such as energy, water, and land in its planning and management, a national government can benefit cities and communities socially, economically, and

conservation-wise (King 2014; City of Vancouver 2012). In addition, the Green Diary project explained that the most practical ways to help clean the environment are reducing the use of electrical appliances, driving cars less to reduce parking space problems, reducing the use of wooden stoves, maintaining a healthy ecosystem, reducing the use of chemicals and pesticides, recycling waste products, reducing carbon footprints, reducing air pollution, and growing food locally (Green Diary 2018). As mentioned above, the clean and green city concept entails zoning of a city or community to minimize impact on the landscape and natural resources, so it protects rural areas because communities manage waste better and use nearly all-natural resources (Hobb et al. 2018). The sustainable development concept is presented in Figure 1.

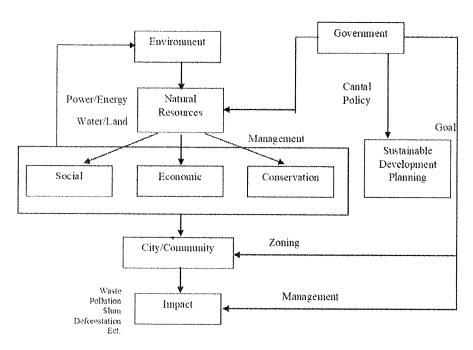


Figure 1: Clean and Green City Concept Source: Author 2018

The green and clean city concept means sustainable developed perception is related to developing balances, so it focuses on increasing city sustainability and sustainable entities throughout Malaysia, especially in tourist areas. State and local governments set up this policy in the most popular regions to support tourism with such initiatives as cleaning a city, growing more trees, establishing nonsmoking areas, and reducing crime. The World Bank Group (2017) report explained that CO<sub>2</sub> emission trends between 1970 and 2010 increased to 357 percent, so the trend effect for Malaysia should cause worry and lead to developing programs for managing this problem.

# Methodology

This study, which was conducted between June 2017 and April 2018 and which used multiple empirical methods of data collection through interviews, focus groups, participation, observations, and fieldwork investigations across Malaysia, includes the states of Sarawak and Sabah. In addition, we invited five local residents, two officers, and two business people to join the focus group discussion in Kelantan and Penang and to join a small-group discussion with four local residents in Johor Bahru, so the cities are part industrial and part conservation and tourist

attraction areas. For the in-depth interviews, we used purposive sampling with thirty key informants, including Malaysian officers, Thai officers working in Malaysia, Thai people who have been married and have lived in Malaysia for more than twenty years, and Malaysian business people. We also interviewed Malaysian politicians at the local and national levels. Secondary sources include literature reviews related to clean and green city concepts, government publications, book chapters related to clean and green concepts in Malaysia, and newspaper and magazine articles. In addition, we used data triangulation and investigator triangulation techniques from interview data, secondary data, and data from observations to check data and compare the data among themselves, and then used content and descriptive analysis from interview data to analyze the data.

# Results

# National Policy Related to the Clean and Green Concept

Malaysia's National Transformation 2050 is a long-term development blueprint that aims to improve societal well-being through economic growth and equitable distribution. Its three keywords are "harmonious," "prosperous," and "sustainable." First, "harmony" entails raising the happiness index. Terms such as "peace" and "harmony" are relevant to Malaysia's multicultural, multiethnic, and multi-religious society. Second, "prosperity" rather than "economic growth" reflects inclusivity for all strata of society. Third, "sustainability" entails the use of creativity and innovation to enhance sustainability and leave a legacy for future generations (Ismail 2017). The national green technology policy, low-carbon cities, and keeping Malaysia green and clean are some of the campaigns that the central and state governments have announced. The national green technology policy focuses on green technology development in Malaysia to support the national economy and promote sustainable development such as the use of solar power at the household level to building, factory, and corporate levels. The objective is to reduce the intensity of national carbon emissions. In addition, the four pillars of green technology are 1) "energy" (i.e., seeking ways to attain energy independence and promote efficient utilization), 2) "environment" (i.e., conserving and minimizing cities' impacts on the environment), 3) "economy" (i.e., enhancing national economic development through the use of green technology), and 4) "social" (i.e., improving the quality of life for all). By following this policy, the Malaysian government hopes to have a green economy/green growth by 2030, including significant contributions to a high-income economy. This will be done by increasing foreign direct investment and data-driven innovation to promote growth, well-being, and economic growth, enhancing Malaysia's competitiveness, improving air and water quality, and planning to be a green township and complete refueling stations and a distribution network. The timeline for the national green technology policy is shown in Figure 2.

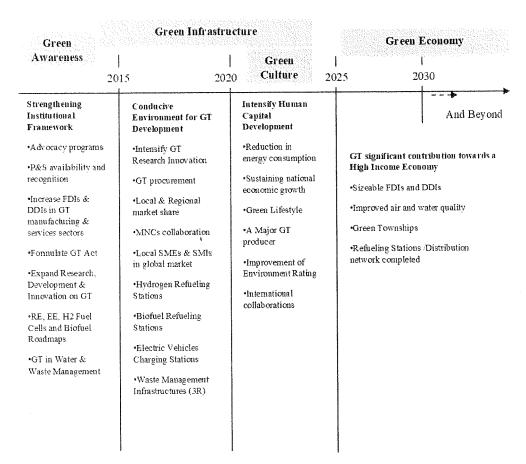


Figure 2: Green Technology 20-year Outlook Perspective Source: Malaysian Green Technology Corporation 2013

The national vision behind this policy includes leveraging green technology to achieve sustainable development and contribute to a high-income economy in many aspects: 1) in energy (focused predominantly on adoption and some production); 2) in water and waste management (enhanced adoption of water conservation and waste recycling moving forward to production); 3) in building design (building and delivering buildings that are totally localized); 4) in transportation (focused on adoption and some production); 5) in manufacturing (focused on adoption and production, particularly in basic industries); and 6) in information communication technology (focused on adoption and innovation including tax-supported innovation).

In addition, low-carbon city initiatives are strategies to develop urban communities and townships into green societies. The effort to reduce carbon has four aspects. First is the emphasis on solar energy and biogases. Second is water and waste management, focusing on water treatment and solid waste management. Third is a focus on green building. To conserve energy and water, the government has set up pilot projects for green building in many cities, such as Putrajaya, Cyberjaya, Subang Jaya, Petaling Jaya, Hang Tuah Jaya, and Iskandar. Fourth is transportation, such as green vehicles and carbon emission reduction.

However, Bakar et al.'s (2017) report presented the problem of Malaysia's economic insufficiency because monetary policy does not support small and medium industries. Similar to our idea about the green economy, it is difficult to make more businesses adapt to the clean and

green city concept because it is challenging for the government to support entrepreneurs in the small and medium scale, such as by tax reduction measures or long-term government loans for improving the general business to a green, ecofriendly economy.

# State Policy and Development Strategy

The IMGIMC national policy has been passed on to many Malaysian states' executive councils, which then set up state policies that correspond to national policy. Green policies based in Kuala Lumpur have led to green living and serious focus on reduction of carbon emissions, creation of sustainable energy, green technology, a cleaner water supply, sewage treatment, water purification, air purification, environmental remediation, solid waste management, and reduced crime. City environment planning in Kuala Lumpur has improved parts of the environment such as air quality (pollution reduction), water quality (river water quality), and noise level. Kuala Lumpur has also created a tropical garden in a natural site appropriate for its tropical location. In addition, the city maintains a judicious balance between development, ecology, and national heritage, thereby enhancing a living environment free from the major forms of pollution.

In Penang, George Town has been declared an official ASEAN "clean city" because various parts of Penang have been developed to support city sustainability by growing more trees and promoting ecofriendly construction and infrastructure to support older and disabled people, especially in the tourism area and downtown. In addition, eco-industrial or green industrial parks in Penang Island and new industrial parks in the Simpang Ampat area in the mainland were developed for environmental sustainability and the reduction of waste and pollution.

Melaka followed the clean and green mission with its Melaka Green City Action Plan 2014, which promotes a healthy environment by growing new trees all over Melaka's downtown and instituting a citywide nonsmoking policy (many hotels in Melaka are nonsmoking hotels). Tourists and local residents can now smoke only in designated smoking areas.

Perak established the Clean Perak campaign, aiming to improve the city's cleanliness by encouraging people to think about keeping it clean. The Perak government spreads its message to all people in the state and hopes to change the habits and culture of local residents, making them aware of cleanliness and encouraging them to collect rubbish in appropriate bins (Avineshwaran 2017). In addition, the government emphasizes green building and energy by encouraging developers to practice green building and energy-saving approaches. The city is becoming a sustainable city, or eco-city, and is focusing more on ecotourism to develop long-term sustainability (Jaafar, Mohamed Nor, and Shah Mina 2017).

The Kedah state government collaborated with the Malaysian Green Technology Corporation (GreenTech Malaysia) to develop the Kedah Green Agenda, which aims to strategically position Kedah as a model green state that employs strategies and initiatives for human capital development by developing a center of excellence for solar technology, enhancing sustainable energy management, encouraging the use of private home solar rooftops, expanding solar power plants, renovating government buildings by using green energy and ecofriendly design, and implementing low-carbon policies by increasing electric vehicle use (Malaysian Green Technology Corporation 2015).

The Come Clean Kelantan and Go Green campaigns are widely used to expose the public to environmental issues and make people aware of green behaviors' potential impacts on the environment and people's daily lives. These campaigns encourage all cities to stay clean and avoid disruption in production by providing a clean and hygienic environment.

Going Green in Langkawi is the concept that the Langkawi municipal council is using to respond to the national call. Specifically, the council is implementing green villages, clean water measures, urban cleanup, beach cleaning, and ecofriendly design for a sustainable environment, following the reduce, reuse, and recycle concept, so the concept is expressed as strategies for reducing the waste from up-stream processing.

Johor Bahru's low-carbon society and urban green growth promote green industries, green households, and a clean environment to make Johor Bahru a competitive center of economic growth. In addition, Johor Bahru contains five development zones. Zone A is the Johor Bahru City Centre (consisting of the new financial district, central business district, Danga Bay integrated waterfront city, and Tebrau Plentong mixed development and causeway). Zone B is Nusajaya (consisting of the Johor state administrative center, medical hub, education city, international destination resort, and southern industrial logistics cluster). Zone C is the Western Gate Development (consisting of the port of Tanjung Pelepas, 2nd Link (Malaysia/Singapore), Free Trade Zone, RAMSAR World Heritage Park, and Tanjung Piai). Zone D is the Eastern Gate Development (consisting of the Pasir Gudang Port and industrial zone, Tan jung Langsat Port and Technology Park, and Kim-Kim regional distribution center). Zone E is Senai-Skudai (consisting of the Senai International Airport and Senai cargo hub).

Sabah follows the 1MG1MC national policy by emphasizing the importance of keeping tourist spots clean and reminding its people of the importance of preserving beauty and cleanliness, especially in the city of Kota Kinabalu, by creating many projects such as tree planting, beach cleaning, waterfall cleaning, and park and garden cleaning. Sabah also uses print and electronic media to publicize the 1MG1MC campaign in collaboration with the private sector, media, and nongovernmental organizations for cleanliness and environmental awareness. In addition, Sabah's Ministry of Tourism, Culture and Environment will connect 36,000 students from 674 secondary schools nationwide, which are registered under its Students Tourism Club (Kelab Pelancongan Pelajar, or Kelab 3P), to encourage children to influence their parents to think green when it comes to recycling and creating a cleaner and healthier lifestyle (Ministry of Tourism, Culture and Environment Sabah 2012).

Sarawak's "A Clean, Green and Healthy Sarawak" vision includes energy efficiency, such as ecofriendly building design (e.g., natural lighting and fresh air, using less electricity, or using light-emitting diode [LED] lighting to compensate for fluorescent tubes), water conservation, and maintaining a safe, healthy, and durable environment by minimizing environmental impact. The ultimate goal is sustainability in the built environment. Keeping Malaysia clean and green is Sabah's state campaign to make Malay people aware of the importance of preserving the country's beauty and cleanliness by prioritizing clean taxis, safe food and drink, and cleanliness and garbage reduction in streets and walkways.

# The Implementation of Clean and Green Cities in Malaysia

On July 18, 2010, Malaysia's minister of tourism promoted the 1MG1MC campaign, which is very important for the country's sustainable development goal. Four ministries work together to instill the green and clean city concept: The Ministry of Housing and Local Government, Ministry of Natural Resources and Environment, the Youth and Sports Ministry, and the Ministry of Education. However, the concept is related to the country's blueprint for development, and the central government aims to make Malaysia a sustainably developed country by 2030, so the government seeks a balance between environmental, economic, social, cultural, and national concerns (Prime Minister's Department 2017).

- 1. The national strategy and master plan are more than a political party's supplemental policy: it is a stronger point pushing Malays to support the national target (Prime Minister's Department, Economic Planning Unit 2004). The clean and green city concept is one part of the country's sustainable environmental, economic, financial, industrial, and social development. It will also increase people's quality of life and reduce the number of poor people in the country (Yatim et al. 2017).
- 2. The decentralization of local administration: In Malaysia, local governments play a central role in the development of the clean and green city program because the state has juridical, regulatory, fiscal, and information management functions (Samsudin et al. 2014), and local government designs more directly affect the people (Ostwald 2017). However, with the

distribution of the development programs from the central government to local governments, the cities in almost every state take part, which is demonstrated by such headlines as "Shopping Center Leads the Way for Recycling in Malaysia" and "Malaysia's Much-Anticipated Mandatory Recycling Program Could Actually Succeed." (Clean Malaysia. 2015). Thus, local governments will be planning alongside the central program.

- 3. Local governments respond to the national program, so they have environmental management power and knowledge, such as implementing cleanliness programs and providing waste management, etc. (Zakaria et al. 2010). Cleaning personnel in Malaysia clean public areas and maintain landscapes, so it is the responsibility of local governments to manage and serve city populations.
- 4. The government managed housing for people with low incomes to better control the slums and provided jobs to people who have low incomes under the Vision Development Plan (2001-2010; Shuid 2004). More housing should be present to support livelihoods; it should not conflict with the local culture, and it should be eco-friendly (Chohan et al. 2011).
- 5. Laws such as an established financial penalty control people's behavior. Todorov (2005) explained that the Malay government must actively sanction any behavior that goes against the green and clean policies. The next time someone considers breaking the law, he or she will have to make a conscious decision (Anlue 1998); however, when people learn and accept social rules that transform behavior of people in a society, then it presents a completely sustainable city (Jonescu 2016)
- 6. For long-term success, the government must focus on making youths and students aware of the clean and green concept. It can do so by distributing information in schools, colleges, and universities because youths and students can influence their families' behaviors.
- 7. In zoning and landscape management, the government must classify industrial areas, agricultural areas, residential areas, etc., and find suitable locations for government and private sector development (Department of the Environment 2012). Zoning in Malaysia takes into account population density and businesses' support of people's livelihoods (Rani 2014) and creates disaster relief areas (Amin and Hashim 2014) to reduce the impact on people's lives and the national economy and to practice environmental control.
- 8. Malaysia's policy is promoted through advertisements, billboards, the arts, etc., to raise awareness and solicit input from the people.
- 9. In accordance with data on  $CO_2$  emissions (Hosseini et al. 2013), the Malay government should seek to improve public transportation. To reduce  $CO_2$  emissions, vehicles could use alternative energy sources such as palm oil and wind or solar energy (Hosseini and Mazlan 2014). Green technology will help Malaysia to become more ecofriendly (Eltayeb et al. 2011), and Malaysia can increase development in public transportation to further reduce  $CO_2$  emissions (Mustapa and Hussain 2016).
- 10. The clean and green concept is connected to the green economy/green growth, so the Malaysian government encourages industrial corporations and businesses to use green technology and reduce waste and pollution in their operations. In addition, many companies have invested in the recycling and reuse of materials, environmentally friendly technologies, internal training on the green economy and selective waste, and purchase and use of materials, because they believe such investments will ensure environmental efficiency and sustainability (Abdullah et al. 2017)

The Malaysian clean and green city concept falls under the larger concept of sustainable development. Therefore, the Malay government must strike a balance between society, the economy, and the environment. To promote the clean and green concept, Malaysia has promoted the building of a national plant but still needs local governments to contribute to concept planning because they will have the most impact and can set up many programs. However, the Malay people respond more to the central government, such as its household or community

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practice suggestions at the family or individual levels of society, so it must still guide clean and green efforts in the near future. This implementation can be seen in Figure 3.

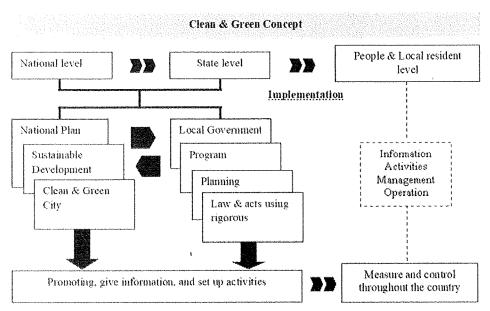


Figure 3: Implementation of the Clean and Green City Concept in Malaysia Source: Author 2018

# The Short Case Study

The goal of the clean city concept is to improve the beauty, sanitation practices, and environment within the cities to make Malaysia a clean and green tourist destination. The central and local governments play an important role in making this policy a success because a clean city involves the mindset of residents and visitors, so both levels of government have created a committee to focus on developing clean and green cities. Many more private organizations, urban green infrastructure decision makers, researchers, and private sector stakeholders have opportunities to come together through local government strategies to create programs and activities, such as antilittering campaigns or nonsmoking areas. A short case study of clean and green cities follows.

Kuala Lumpur set up zoning for smoking areas around the city; public areas frequently have no smoking stickers that state violators will pay a penalty of about 10,000 ringgits. This has kept down garbage and made pruning grass easier. To expand green areas, the government seeks to maintain the old natural park, and it built a new park for people to relax in and to keep a green area in the city. Low carbon in the city was reached by encouraging residents to use public transportation to reduce the number of cars on the road and to reduce traffic. Electric vehicles were promoted, and renewable energy such as solar energy was encouraged by redesigning buildings in Kuala Lumpur.

Pulau Penang or Penang Island is a destination for visitors who travel to see world heritage sites with local architecture. Penang will be keeping the old trees in the conservation zone and will be cleaning the area for visitors or people in the city to admire and relax in during their vacations. However, Penang Island has more authority from the government to manage and monitor environments in the city, such as the Najilis Bandaraya Pulau Pinang—where Penang Island manages illegal waste dumping and garbage remains—or Jabatan Alam Sekitar Negeri Pulau Pinang—where Penang Island monitors the smoke from burning trash. Penang tries to

clean both the island's beach and coast. In addition, Penang has many visitors, meaning garbage is a big problem to manage, so the local government tries to promote sorting garbage. Therefore, the local people and visitors sort it; the local government achieves this by offering multiple bins for recycling garbage and general garbage distribution on the island. Transportation in Penang is kept clean, such as by keeping the interiors of taxis and buses clean to make the public transportation environment a good one. In addition, advertisements for a clean environment and for environmental protection can be seen inside the city zone of Penang; at present, Penang does additional promoting of natural parks to visitors and promotes the development of the city so the city is sustainable in the future.

Taiping is well-known for its colonial architecture and seafood, and it has many mangrove forests and much production from the coast. Mangrove forest management is interesting; the main product of the mangrove forest is charcoal, and mangrove forest management is the concessionaire of its use and management, combined with government monitoring. To work in management, employees must have good knowledge of forestry management, so the concessionaire can protect and use mangrove trees to support the charcoal industry. The concessionaire will rotate thirty cutting sites in thirty years and will use many systems to manage the mangrove forest. Taiping's government keeps the city's trees clean and continuously grows trees because natural resources are part of the tourism industry. Taiping is famous for its mangrove forests and fireflies, and the fireflies indicate water quality. The people in Taiping realized they must maintain water quality because it is related to their livelihoods and occupations.

Johor Bahru has a great deal of new construction, which has developed the area into an industrial city and includes a shopping mall. The city will have too much labor to rely on transferring people who are working in Singapore, so the impact on transportation is best between Johor Bahru and Singapore. Johor Bahru was found to be cleaner; people are keeping garbage down, which makes pruning grass easier, and the city has managed its residential zone. The residential zone has a green space or park for people to visit, and the park in Johor Bahru has a big trees and public activity space. Water from households is treated before flowing into natural rivers. In addition, growing trees and building natural parks in or around cities is an important factor that makes Johor Bahru a green city. Landscaping and zoning in the city have been managed in the residential zone.

As the short case study mentions, most cities in Malaysia are trying to develop and follow the clean and green city concept to create sustainable cities, and this concept is one part of the economic development process to keep tourism destinations clean for tourists around the world. In addition, the concept's implementation in numerous cities in Malaysia can be organized by themes and activities, as shown in Table 1

Table 1: Themes and Activities of the Clean and Green Concept in Malaysia

	ivities of the Clean and Green Concept in Malaysia
Theme	Activities
Urban forest	Cities can grow trees and value, nurture, and protect urban forests.
Clean air	Cities have consistently clean, healthy air and reduce air pollution (e.g., by prohibiting people from smoking in public areas).
Low carbon	The government and councils are recognized as leaders in reducing carbon.
Green transport	Increased electric vehicle and active public transport use help reduce congestion, fossil fuel consumption, and emissions.
Parks	City parks are diverse and accessible.
Biodiversity	Urban form and city growth are connected to natural areas to protect their rich biodiversity.
Waste and resource recovery	Improve waste management following the reduce, reuse, and recycle concept.
Cleanest city	The concept can be improved and enforced by law. In addition, the government can distribute more information and launch campaigns to improve people's attitudes and to advocate for programs that promote behavioral changes for cleanliness among citizens.
Green energy	Malaysia established the target of 50 percent renewable energy by 2050, and the government has initiated and implemented many policies to achieve this target, such as renovating government buildings for ecofriendly design, making solar energy a main renewable source of energy, enforcing manufacturing guidelines, and improving operations to make them environmentally friendly.
Water sustainability	Numerous cities in Malaysia are resilient, water-smart cities that use water sustainably and protect their waterways.
Friendly design	Improve and renovate downtown areas to create a universal and friendly design, sustainable environments, and renovated walkways and roads for everyone.
Behavioral of Citizenship	Numerous campaigns and activities make people aware of the clean and green concept because active individual involvement has been an important goal and practice in sustainability. For example, educating young people in schools and universities about clean, green, and eco concepts can increase clean and green behaviors of individuals and families because young people have influence and can therefore change their families' behaviors with their knowledge.

Source: Author 2018

# Conclusion

Going green is necessary for sustainability because we are beginning to run out of natural resources that we need to survive (Kukreja 2016). Green growth can enhance efficiency and productivity. Green, resource-efficient technologies and practices often save resources and money compared to conventional alternatives. They enhance competitiveness over the long term—sometimes even in the short term—and underpin industrial policy and macroeconomic goals. Growing demand for green technologies, products and services domestically and internationally offers countries the opportunities to develop new industries and markets that create good and long-term jobs. In addition, many business opportunities can be reaped in growing markets, such as organic agriculture, renewable energy, and eco-tourism. Additionally, new opportunities in green, resource-efficient technologies and suitable uses for them have efficiency (Edeisy and Carlo 2018).

Cleanliness is important for the same reason, especially for companies that intend for their operations to be green (Cohen 2011). A clean city aims to decrease how much waste is sent to landfills, increase environmental charity, and decrease filth to raise the quality of life of people and travelers in the city (Mourby 2015). The clean and ecofriendly urban infrastructure of Malaysian cities can lead the country into a position of leadership in the Southeast Asian and Asian economy in the near future. In addition, more urban safety and beautiful areas can attract tourists and increase the country's income.

IMG1MC is the core policy the Malay government uses to promote and make people aware of city cleanliness and a green environment. Malaysia has supported many policies and put into place legislation and promotional activities, and these efforts need to be long-term and consistent to achieve green growth and overall national sustainability. However, the clean and green city concept is part of the larger concept of national sustainable development, so the national master plan for clean and green cities focuses on the balance between society, the environment, and the economy. To implement the clean and green city concept, the Malaysian government has decentralized its operations, transferring some responsibility to local governments to initiate programs and planning. This collaboration allows local governments to contribute to national goals and affect the country. Nevertheless, it is important to change people's behaviors, so legal authorities must act rigorously and equitably to help Malaysia come closer to clean and green cities in the near future. The concept is very important to people and the government has participated and been cooperative (De Muynck 2017) in the developing of cities to green, sustainable cities.

The clean and green city concept is one step to developing sustainable cities, and the Malaysian model is a model for cities in ASEAN countries to use as a guideline for residential development areas in rural and urban places. In the study, we found the key to success and creating points of opportunity for clean and green cities is encouraging people to change their behavior to international cultural standards about how to keep sustainable. Therefore, Malaysia uses regulations and laws as part of the clean and green city movement. In addition, the clean and green city concept creates more opportunity for people to live and work in a city that is safe, prosperous, and sustainable while caring for the environment. Thus, we are realizing the clean and green concept needs to balance natural resources and development for sustainable cities in ASEAN countries.

# Limitations

This article presented the positive aspects of the clean and green city concept in Malaysia and did not mention any of its challenges and obstacles because this study aimed to show the positives in the argument, the good activities, and the good development process of creating an idea and using it as a case study in another country, such as Thailand and other ASEAN countries, to further develop and follow the clean and green city concept.

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