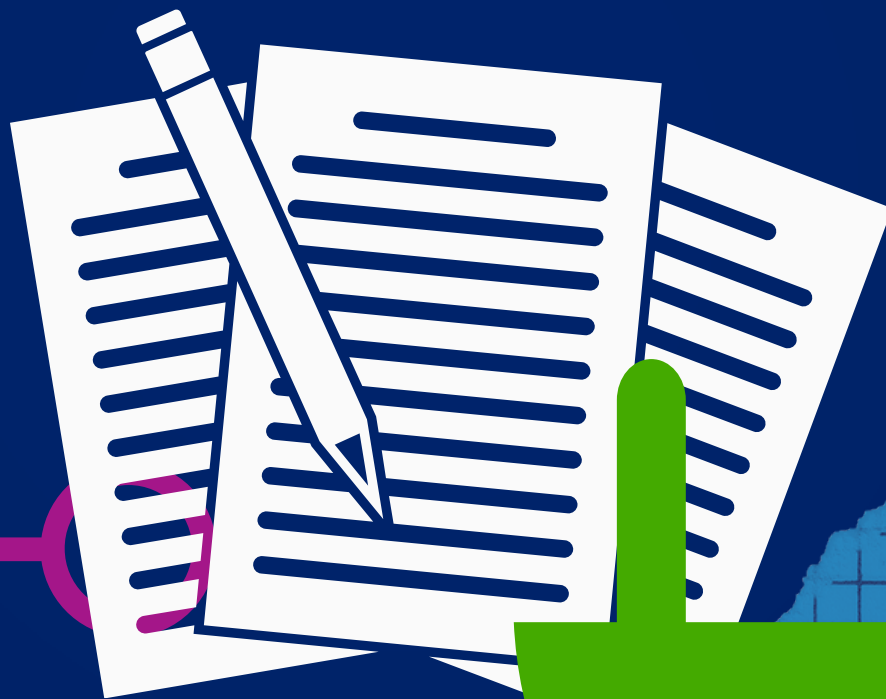


Essay competition

EU-ASEAN synergies for a
green and digital world

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About the author

Anggi Koenjaini Putri is an international relations student at UPN Veteran East Java. She is enthusiastic about social research activities. She has experience as a research assistant and junior smart city analyst at Citiasia Inc. She is an extracurricular supervising teacher for young researchers at Junior High School (SMPN) 41 Surabaya, and passionate about helping her students succeed.



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Green Governance and sustainable tourism: Case Study Surabaya city

Introduction

Flooding and loss of water catchment areas due to population density are major urban environmental problems in developing countries. People who cannot process their household waste might dump their garbage in waterways, which has detrimental implications for the environment. An example is Kenheran Beach in North Surabaya, which suffers from seawater pollution caused by microplastic and household wastewater, which impacts the livelihoods of the surrounding community.

Surabaya is the second-largest city in Indonesia, with a total population of 3.095.026 in 2019. The large population increases the demand for and use of land, leading to new problems such as environmental pollution of water, air, and soil.

Vehicle pollution, smoke from factories, garbage accumulation on the river banks, and densely built areas, which affect soil surface infiltration, are one of the causes of environmental pollution. To address these problems, the city government of Surabaya focuses on green urban planning by implementing the concept of a Green City.

Surabaya is globally recognized as a green city, as evidenced by the UN Sustainable City and Human Settlements Award won for the Global Green City category. This award designated Surabaya as one of a series of clean cities in the world.[1] The work of the city's government, community and the student movement concerned with the environment (Tunas Hijau), and the Community Movement for Preserving the Environment ensures a clean and green environment.

The award that named Surabaya as a Green City, the development of tourism, and the creative economy has brought Surabaya to the evolution of the sustainable tourism model.

The Green City Principle

The Green City concept is included in the Green City Development Program, an initiative of the Ministry of Public Works and Public Housing of the Republic of Indonesia. In addition, the Ministry of Environment and Forestry, together with the city government of Surabaya, will realize a more qualitative and environmentally friendly urban space through good planning. To implement the Green City Development Program, five principles need to be considered. Firstly, the strengthening of environmentally friendly urban design and planning, availability of green open spaces, and the green community.

[1] Proud of Surabaya. 2017. Surabaya the World's Best City category "Global Green City". November 2. Accessed June 15, 2022. <https://bangga.surabaya.go.id/2017/11/05/surabaya-kota-terbaik-dunia-kategori-global-green-city/>.

Secondly, the expansion of the reach of green cities by developing green buildings, green energy, and green waste. Thirdly, the strengthening of local capacity by focusing on locally-led development to build ownership of processes and products. Fourthly, an optimized project cycle, which comprises short planning, programming, development, maintenance, and an evaluation cycle oriented to real action. Lastly, urban labs, a common learning tool that can be taught and widely applied.

Principles of sustainable tourism

Sustainable tourism ensures that the social and cultural resources used for tourism development remain available for future generations. Sustainable tourism can be supported ecologically, is economically feasible, and ethically and socially equitable for the community.[2] Sustainable development is an integrated effort to enhance the quality of life by regulating the supply, development, use, and maintenance of resources sustainably. Sustainable tourism development can be identified by the following principles: participation of stakeholders, local ownership, sustainable use of resources, accommodating community goals, attention to carrying capacity, monitoring and evaluation, accountability, training, and promotion.[3]

According to the World Tourism Organisation (UNWTO), sustainable tourism comprises three components: environmental, economic, and sociocultural sustainability. Environmental sustainability ensures the optimal use of environmental resources, by maintaining ecological processes and preserving natural heritage and biodiversity at tourist destinations.

[2] The Sustainable Tourism Charter 1995.

[3] Arida, I Nyoman Sukma. 2012. The Continuous Pariwisata Textbook. Bali : Sustain-press.

Economic sustainability reduces poverty levels, encourages economic growth and creates job opportunities. Lastly, sociocultural sustainability maintains the socio-cultural authenticity of the local community with mutually agreed rules and provisions, preserves the value of cultural heritage and local customs, as well as increases tolerance and understanding between cultures.[4]

How does Green Governance affect Sustainable Tourism in Surabaya?

- Urban Parks and Forests as Surabaya City Open Space

Urban parks and greening activities in the housing, transportation, commerce, industrial, and waste management sectors can change urban air quality. Parks and urban forests absorb pollutants from carbon dioxide and produce oxygen. As green open spaces, parks are a substantial counterbalance to the urban environment. Surabaya has 142 active parks.[5] Active city parks are public open spaces that have ecological, sociocultural, economic, and aesthetic functions. The parks are created with various concepts and themes, such as an elderly park to accommodate older people, an expression park displaying sculptures and expressive spaces, and a fruit park.[6]

In addition, Surabaya's mangrove forest filters polluted sea water from industrial waste and ships, is a breeding ground for animals. But most importantly, it is a buffer to protect Surabaya's coastline from sea erosion. Surabaya has tourism in mangrove forests, including the Wonorejo Mangrove Ecotourism, Gunung Anyar Mangrove Tourism, and Gunung Anyar Mangrove Ecotourism.

[4] The World Tourism Organization (UNWTO). n.d. SUSTAINABLE DEVELOPMENT. Accessed June 15, 2022. <https://www.unwto.org/sustainable-development>.

[5] Lambertus, Hurek. 2021. Radar Surabaya: Surabaya Has 142 Active Parks and 311 Passive Parks. October 13. Accessed June 15, 2022. <https://radarsurabaya.jawapos.com/surabaya/13/10/2021/surabaya-punya-142-taman-aktif-dan-311-taman-pasif/>.

[6] Environment Agency. 2017. Study Of The Carrying Capacity Of The City Park Environment In Surabaya. Report, Surabaya : Dinas Lingkungan Hidup.

- Waste Management in Surabaya

The Benowo Garbage Final Shelter processes the waste of Surabaya and produces electricity from a landfill gas generating system. This system produces electricity of 2 megawatts (MW) per day, of which 1.65 MW is directly connected to the State Electricity Company for community needs. Waste Shelter Benowo has built an additional power plant which uses a gasification system, to increase electricity production to 12 MW. This recycling facility also applies the Black Soldier Fly technology which is a technology that utilizes fly larvae to eat organic waste from food scraps/household waste. It is estimated that 10 thousand larvae can decompose 12 kilograms of garbage in 12 days.[7]

In addition, the Surabaya Bus fee can be paid with plastic waste. Passengers can choose to pay for the bus fare, by bringing five medium-sized bottles, three large bottles, or ten glasses of mineral water, plastic bags, and plastic packaging. This will allow passengers to ride around Surabaya for two hours for free. The Ministry of Environment and Forestry invited the UNEP Delegation to Surabaya to show the international community that Surabaya has made extraordinary efforts in sustainably managing hazardous toxic waste and has an economic impact on its people through circular economy patterns.[8]

Conclusions and recommendations

Surabaya's efforts to realize green governance demonstrate the success of innovations in sustainable development. Sustainable tourism in Surabaya still requires a maximum transformation in supporting access to digitalization for effectiveness and efficiency for sustainable tourism in the future.

[7] Ministry of Environment and Forestry . 2018. PRESS RELEASE: Surabaya City Waste Management Appreciated Internationally. October 30. Accessed June 13, 2022. http://ppid.menlhk.go.id/siaran_pers/browse/1595.

[8] Ibid.

In addition, monitoring and evaluation of tourist attractions requires improvement. Lastly, maintenance and sustainability should be maximized to reduce the risk of accidents and damage.

The challenge of the sustainable tourism industry is to process natural resources environmentally friendly. Ultimately, the sustainable tourism industry should create a positive environmental footprint. Strengthening statutory instruments also needs to be directed at sustainable processing of the tourism sector. In Indonesia, this is stated in Article 2h of Law Number 10 of 2009 concerning tourism that "sustainability" is one of the principles in implementing tourism. However, this has yet to become the focus of local-level regional laws. Sustainable tourism will continue to grow in the coming years, and adequate digital technology transformation needs to be improved to support access and efficiency as a smart city. Applying green governance to sustainable tourism could tackle urban problems, such as lack of green spaces, waste problems, flooding, and poor air quality. Therefore, the Green Governance concept focuses on green cities and sustainable green tourism. Green governance does not only exist from the top-down but also from the bottom-up. The bottom-up approach calls for awareness-raising and engagement, requiring local governments to transform ideas, agendas, and environmental preservation practices for economic sustainability and development.

[7] Ministry of Environment and Forestry . 2018. PRESS RELEASE: Surabaya City Waste Management Appreciated Internationally. October 30. Accessed June 13, 2022. http://ppid.menlhk.go.id/siaran_pers/browse/1595.

[8] Ibid.