

# TANGERANG CITY, INDONESIA

## CLIMATE VILLAGES AS MODELS OF CITIZEN-LED CLIMATE ACTION

### The Story in Short

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Tangerang City, a rapidly-developing and industrial satellite city of Jakarta, faces extraordinary urbanization challenges. Tangerang has expressed its sustainable development commitments with policies and funded programs, and efforts to build collaborations with stakeholders are key to implementation.

One of the national government's flagship community-based initiatives is the "[Climate Village Program \(PROKLIM\)](#)", empowering bottom - up climate action management and implementation. A local village's success in stakeholder engagement for waste management inspired not just its own subsequent urban farming effort, but also the Mayor's dramatic expansion of this initiative across Tangerang.

*Figure 1: City of Tangerang, Indonesia*

## City of Tangerang: Facts and figures

### Population

1,895,486 (2020)

### GDP per capita

63.2 million rupiah<sup>1</sup> or 4,365.07 USD (2020)

### Land area

164.55 km<sup>2</sup> (63.53 sq mi)

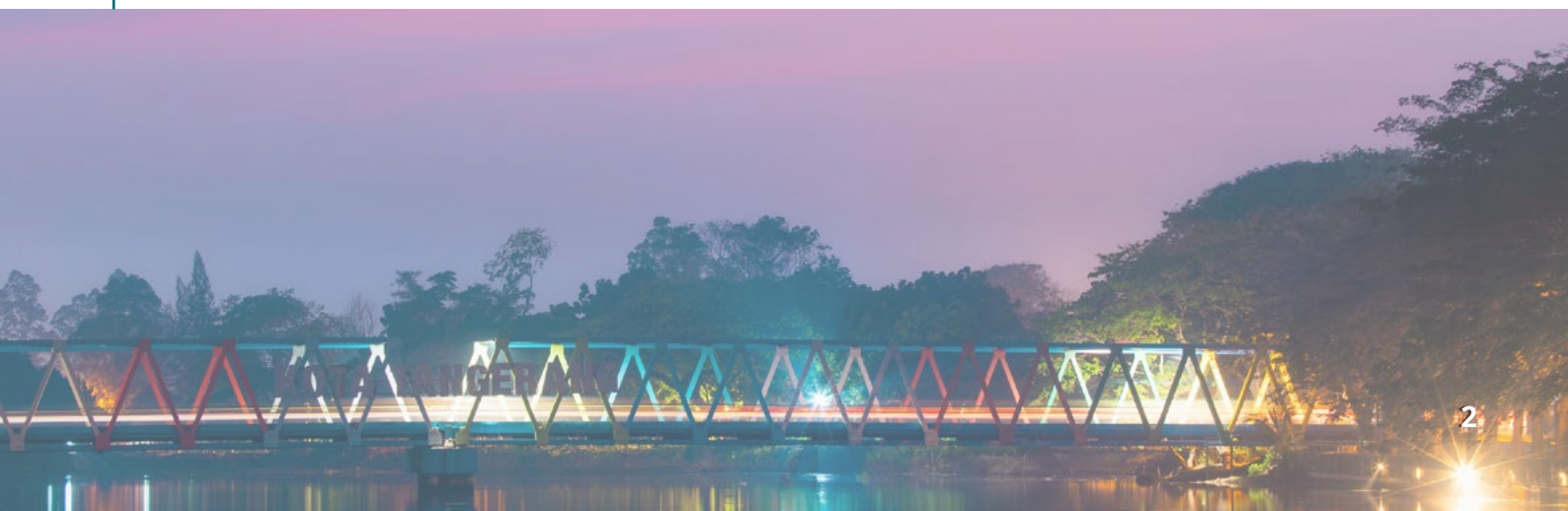
1 BPS-Statistics of Tangerang Municipality (2021). Tangerang Municipality in Figures 2021



Figure 2: Location of City of Tangerang, Banten, Indonesia

*Tangerang City is home to nearly 2 million people and houses the Soekarno-Hatta International Airport. With more than 1,000 factories for both domestic and multinational corporations, most of its lands were dedicated for residential and commercial purposes, although a considerable portion of forests and swamps still remain.*

*Facing rapid development with rapid population and workforce growth, transportation is a key issue in the city.*



## Environmental Degradation as Motivation for Local Champions

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“Manufacturing hub” and “climate village” appear to mix like oil and water, but Tangerang’s city government is determined to prove otherwise. Greater Jakarta’s key manufacturer must juggle economic priorities with environmental degradation (i.e. flooding, clean water, and air pollution crisis). One community in Benua Indah (in RW 07 Pabuaran Tumpeng Urban Village) was particularly motivated to mitigate these emergent threats and took matters into their own hands. Residents had little green

space, plus experienced smoke due to waste burning, odor waste during the summer, and a waste-clogged drainage channel that flooded during the rainy season. Four concerned local residents – Mr. Sumarjo, Mr. Oktian Jayawiguna, Mr. Bambang Bayu, and the late Mr. Sutrisna– took the initiative to solve their local waste problems. What resulted is a climate village that inspired future action in their own community and across the entire city.

## Improving Waste Management with the Climate Village Model

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In 2012, the four champions began managing waste from the household at the source level, aiming to create a clean, healthy, and sustainable area. They started with engaging the community to sort their waste into organic and inorganic waste. The idea was to reap monetary benefits from inorganic waste that officers picked up weekly and subsequently sold to a middleman. Revenue was donated to those in need (Sedekah Sampah/ Waste Charity).

However, changing people’s behavior proved challenging, and the four pioneers were initially rejected by the surrounding community and received limited funding. With diligence and consistency, their patience paid off, and by 2016, composting activities with organic waste could begin. The city government granted the leaders a permit to use social facilities’ land as places to sort and manage waste. Organic waste becomes fertilizer for plants, while inorganic waste continues to be sold. The initiative

has been able to reduce the final amount of the community’s waste generation by almost 80%, equivalent to about 400 kg per day.



*Figure 3: The activity of residents, handing over inorganic waste which has economic value to the officers. Source: Benua Lestari Indonesia*

## Meeting Urban Greening Goals with a Renewed Community Foundation

The community's waste management strategy became a proof of concept to involve residents in urban greening, which took off in 2018. Residents now receive compost as complementary to planting on their property. In 2020, the community also began treating organic waste using the Black Soldier Fly (BSF) method, which produces maggots to support fish farming and urban agriculture activities. Although local champions initially drove the initiative, residents' support (especially from housewives) has proved

instrumental in continually improving the climate village. 11 volunteers are responsible for administration and technical support of the community's facility and operations. The private sector has shown its contribution by encouraging the community to share its expertise to other areas. Lastly, the government has provided support facilities for Tempat Pengelolaan Sampah 3R (TPS 3R), a waste management site applying the Reduce, Reuse, Recycle principle.

## Results and Scalability Across Tangerang

A far cry from piles of garbage, clogged drainage and burning waste, Benua Indah Housing has become a green, clean, healthy, and sustainable settlement. Residents can enjoy sunshine with new green spaces, and live during the rainy season without worrying waste will clog drainage. Crucially, newfound social capital will allow the community to maintain its improvements. Managers have become trusted leaders and community environmental activists. The village has become a case study for student final assignments, thesis preparation and internships.

Citizens' actions through the climate village program align with Tangerang City government's commitment in responding to climate change. With the challenges they face, residents across Tangerang have been able to manage and reduce waste, build biopori wells, reforest housing areas, and others. Benua Indah's particularly successful initiative also inspired the Mayor of Tangerang City, Arief R. Wismansyah. In 2018, Mayor Wismansyah pledged to establish

500 climate villages in Tangerang by 2025, and to ensure all sub-districts' involvement. As of 2021, there are 115 climate villages in the city.



*Figure 4: Indonesian Minister of the Ministry of Environment and Forestry, Ms. Siti Nurbaya, and Mayor of Tangerang, Mr. Arief R. Wismansyah, visited Benua Indah Housing Community (March 19, 2021) to appreciate the initiative on creating a climate village. Source: Humas Pemerintah Kota Tangerang*



In order to achieve the target of 500 climate villages in 2025, the Tangerang city government will focus on developing 385 climate villages, where each of Tangerang's 13 sub-districts will administer 39 climate villages. Tangerang's vision is inspiring and gives hope that cities will continue to innovate on their own sustainable development pathways.

## Costs and Funding

Benua Indah Climate Village's current assets are IDR. 1 billion (about 70,000 USD), in the form of buildings, composting equipment, maggot cultivation equipment, garbage transportation equipment, and other supporting equipment. Profits finance labor and help those experiencing economic difficulties due to job loss or COVID-19.



Waste charity activity generates a monthly return of IDR. 1.5 million (103.7 USD). Products of waste composting are donated to residents in need. Organic waste management activities produce 200-250 kg/month of maggots.



The activity fund is managed professionally and transparently with a reporting mechanism for activities and fund use. Transparency and accountability allow administrators to maintain the trust of citizens, government, and actors who support this activity.

*"In the future, we want to expand the coverage of areas that are responsive to climate change"*

Mayor Wismansyah

## Facts and Figures

**WASTE REDUCED  
BY 80%**



This climate village's activity has been able to reduce waste by 80% of total household waste produced (equivalent to 400kg/day) by 250 households in RW 07.



**2018  
AWARD**

The success of Benua Indah, managed by the Indonesian Benua Lestari Institute, helped Tangerang receive the main award from the Ministry of Environment in 2018. This was the first time Tangerang received the coveted award.

## Zooming in on the implementation or a specific phase/element of the case

The Climate Village Program is a national program managed by the Ministry of Environment and Forestry through Regulation Number 84 of 2016. It aims to increase the involvement of community and other stakeholders to strengthen adaptation capacity in facing the impacts of climate change and reducing GHG emissions.

This program also gives recognition to previous climate change adaptation and mitigation efforts that can improve local welfare in accordance with regional conditions.

The team's mottos are  
**"Waste Brings Blessings"** and  
**"We Are Proud to Be Waste Men".**

*"We hope this success does not only stop in our environment. We really hope other regions can do the same, and we want to share this knowledge and experience with everyone."*

Mr. Bambang Bayu



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