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Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

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# BEKASI CITY, INDONESIA

# WOMEN-LED MODELS OF COMMUNITY-DRIVEN WASTE MANAGEMENT SOLUTIONS

# The Story in Short



As Sumur Batu Landfill approaches capacity, Bekasi City is under pressure to devise sustainable waste management solutions. The city government is aggressively advocating waste reduction at source and improved recycling efficiency, but projects will only succeed with community participation.

Under Ibu Mimin Karmini's leadership, women homemakers have proved to be invaluable partners in operating a community waste bank in Wijaya Kusuma. This bank facilitates waste diversion and recycling efforts while providing jobs and additional household income. As the bank has grown, so too have community-led efforts to reduce GHG emissions associated with waste disposal, paving the path to a cleaner, healthier environment.

Figure 1: Ibu Mimin Karmini. Source: ICLEI Indonesia 2021



## **City of Bekasi: Facts and figures**

#### **Population**

2,448,830 (2019)

### **Total area**

210.49 km<sup>2</sup>

## **GDP per capita**

32.7 million rupiah, or 2,257.16 USD (2019)



Figure 2: Location of City of Bekasi, West Java, Indonesia

Bekasi City is a rapidly growing city in West Java, Indonesia, east of Jakarta within the Greater Jakarta metropolitan area. Well-known for its manufacturing and a growing service economy, Bekasi's role in waste management, particularly as the primary destination for the metropolitan area's waste, is of tremendous importance to ACP. Bekasi has actively supported community waste bank programs and recognizes its potential for energy generation from the Waste-to-Energy plant in the Bantar Gebang landfill. Bekasi is along the main east-west highway traversing Java, which subsequently clogs its own road arteries. Although two rapid transit systems pass through Bekasi, most citizens lack access to public transport.Bekasi is known for its thriving manufacturing industry as well as its growing service economy.



## Community Waste Bank as a Source Waste Reduction Strategy

Most of Bekasi City's approximately 1,700 tons of daily waste arrives in the Sumur Batu Landfill. The landfill – approaching unique waste capacity presents \_ management challenges: the appropriate technology for efficient waste disposal remains unidentified, and expanding the facility is infeasible. Therefore, the local government has urged residents to reduce their waste at source and improve recycling

capacity. Bekasi sees the implementation of community waste banks as a potential solution. These small-scale facilities provide decentralized inorganic waste sorting and recycling while allowing residents to profit off their inorganic waste products. This approach has been widely adopted across Indonesia. One of Bekasi's most successful waste banks is Wijaya Kusuma, located in RW 16 Mustika Jaya Urban Village.

## Women as Catalysts for Wijaya Kusuma Waste Bank

Piles of foul-smelling, uncollected garbage posed health and safety risks to village residents. A growing chorus of complaints pushed Ibu Mimin to establish a community waste bank. Established in 2014, the Wijaya Kusuma Waste Bank aims to promote a healthy environment for village residents, to help reduce garbage collectors' burden in sorting and collection, and to provide additional income for residents.

Every Tuesday, residents deposit inorganic waste (such as aluminum, iron, cardboard, plastic bottles, and plastic bags) at the waste bank in exchange for cash. The collected wastes are then sold to partner recyclers of Wijaya Kusuma each month; recyclers then sell these items to a household product manufacturer in Surabaya, thereby reintegrating recycled products into the production process. The money earned by Wijaya Kusuma in this process is used to sustain waste bank operations.

30 volunteers, led by Ibu Mimin – an ordinary housewife who has no background on waste management, but has a strong concern for the environment – compose the waste bank's advisory and supervisory boards. Ibu Mimin stressed that establishing and sustaining this community initiative was challenging, but residents' persistence and commitment created conditions for success. Women homemakers – equipped with practical knowledge from daily experience in waste sorting and disposal – were critical. They best understand existing local practices and the community's potential to adopt behavioral changes, plus share the goal of providing a clean, healthy village. These factors best position women homemakers as catalysts for improving waste management.



Figure 3: On Tuesdays, RW 16 Mustika Jaya Urban Village residents deposit their inorganic wastes to the Wijaya Kusuma in exchange for additional income. The activity is carried out by the Wijaya Kusuma waste bank management. Source: Wijaya Kusuma waste bank, 2021





Waste collection and sorting at waste bank Residents deposit their wastes to the Wijaya Kusuma Waste Bank in exchange for money.



to partner recyclers Wijaya Kusuma Waste Bank sells collected and sorted wastes to partner recyclers every month.



Partner recyclers sell recycled wastes to manufacturing company Partner recyclers sell the collected recycled waste products to a household product manufacturing company based in Surabaya.





Reintegration of recycled wastes into production processes

The Surabaya-based household product manufacturing company use recycled products into their production processes. The resulting products are marketed to consumers in Indonesia.

## **Results and Achievements to Date**

The success of the waste bank has been consistently recognized by the city government and they encourage other villages to follow the path set by Wijaya Kusuma waste bank. Their experience has been serving as a model and inspiration for other villages. This strategy is also in line with Bekasi City's efforts to reduce its GHG emissions contribution in the waste sector.

The Wijaya Kusuma Waste Bank has built partnerships with its residents and local universities that continuously look for solutions to improve the efficiency of the waste bank and build the capacities of the community. The next step for the community is to expand the waste bank to process organic waste by building a composting facility and a hydroponics urban farm.



*Figure 4: Designated waste bank officers also collect plastic and paper wastes from the residents' homes. Source: Wijaya Kusuma waste bank 2021* 

# **Costs and Funding**

The Wijaya Kusuma waste bank started with a capital of 68.91 USD to buy stationary, handbooks, and scales while the facility's space was a room provided by RW. Currently, the waste bank has an asset of 3,445.35 USD as well as automobile service and warehouse space.

The city government also extends its assistance by providing the infrastructure and equipment needs of the waste bank.





Figure 5: Aquaponic facility in Wijaya Kusuma Waste Bank. Source: ICLEI Indonesia 2021

## **Facts and Figures**



Wijaya Kusuma waste bank is managed by 33 people consisting of 28 women and 5 men.



The bank is capable of receiving and diverting landfill disposal of 1.3 tons of wastes every month.



The waste bank community has 140 active household members and 180 passive household members.



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

Decentralized waste management is key to addressing urban solid waste management problems in Bekasi. It allows for community participation and direct delivery of other benefits (i.e. cleaner living environment, additional income, job creation), and offers actual, effective, and consistent implementation of concrete interventions that support the overarching waste reduction strategy of the city (i.e. 3R policies and programs). This approach has been implemented in ACP cities in Indonesia (Jakarta, Bekasi and Tangerang), showcasing citizen engagement in climate action that contributes to waste diversion efforts while also reducing GHG emissions in the waste sector.



Figure 7: Some of Wijaya Kusuma Waste Bank's management team. Source: ICLEI Indonesia 2021

"I want to help solve problems in my community, and waste is a serious problem in my community. I hope this [waste bank] can contribute to my city and the next generation. This is my pledge for my community and my city."

Ibu Mimin Karmini





*Figure 6: Hydroponic facility in Wijaya Kusuma waste bank. Source: ICLEI Indonesia 2021* 

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