

# Implementation of Kangpisman Program for Zero Waste in Bandung City

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Waste is one of the classic problems in Bandung. With approximately waste disposal of 0.65 kg/person/day, the waste disposal of Bandung is estimated around 1,500–1,600 tons/day. The wastes are mixed and mainly disposed to Sarimukti Landfill, the final disposal site around 45 km from Bandung City.

In order to improve the waste management system, the Bandung City Government has launched a new waste management paradigm and concept. The implementation of the 3R, circular economy, zero waste and the application of decentralization of waste management. is endeavored earnestly. Besides, Bandung's new paradigm means that waste is a potential new resource if it is handled properly.

To carry out the new paradigm, the Bandung City Government introduces the Kangpisman Program to the society, which means to reduce, separate, and use for better waste management.

The Kangpisman Program is campaigned massively. To start the new system and to raise public consciousness, Bandung City government constructed the pilot models simultaneously. For this purpose, collaboration with the Regional Office, Local Leaders and RW cleaning operator was established.

At the launch of the Kangpisman Program in early 2019, the Bandung City government built a pilot model of 12 RWs, whereas in 2020 was constructed a village scale model in Sukamiskin and Cihaurgeulis Village. By the end of 2020, Kangpisman Program was introduced and implemented in 147 interested RWs.

In connection with sanitation issues, the separation and handling of organic waste is the important subject, since improper handling garbage of the organic waste causes disgust, dirty, and bad smell. Based on the conditions and interests of the residents, the handling of organic waste is carried out by two approaches where partially in the yard of each house and by communal exertion.

The organic waste was processed and utilized according to the agreement of the residents, such as biopore, Takakura, composter, terawang brick, loseda, as well as black soldier fly maggot.

Figure 3 shows the adherence level of residents on waste separation in Kelurahan Sukamiskin.

By utilizing the waste, as shown in Table 1, it would minimize the residual waste disposal to the temporary Transfer Station (TPS) or final landfill (TPA). Since waste utilization is not fully implemented in Bandung City, there is no exact data yet on waste disposal into the final landfill (TPA). Normally, the generation of waste every year increases with population growth. Figure 4 shows the increase of waste dump into the TPA annually.

Interestingly, in 2019 when the Kangpisman was introduced initially, the waste disposed into the final landfill declined significantly from 8 to 3.9%. The decrease was drastically occurred in 2020 to 0,47%. The data reveals that Kangpisman has positive impact on waste disposal to the landfill (TPA).

The outcome encourages the Government of Bandung City to implement the Kangpisman program on entire Bandung City, which gradually improves the waste management in Indonesia.

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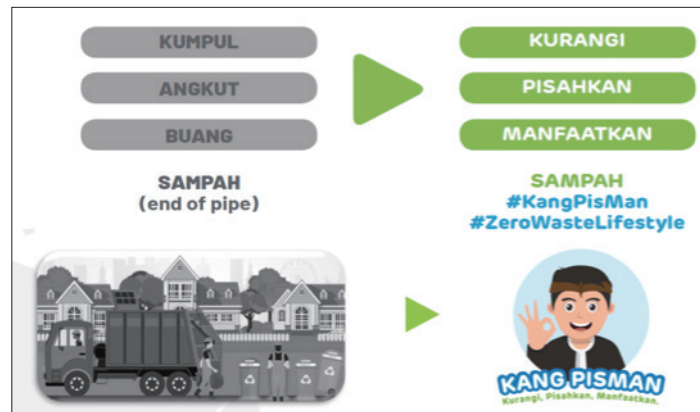


Figure 1. Transformation in the Paradigm of Waste Management through Kangpisman Program. (PD Kebersihan Kota Bandung 2020)

The infographic is divided into three main sections: **KANG (Kurangi)**, **PIS (Pisahkan)**, and **MAN (Manfaatkan)**.  
**KANG (Kurangi):** Encourages daily habits like reducing plastic/styrofoam use, reusing items, carrying reusable bags, and eating/dinking responsibly.  
**PIS (Pisahkan):** Instructs residents to separate waste into three types: 1) Food waste in a closed bin; 2) Paper, glass, and plastic in a cardboard box; 3) Other waste in a general bin.  
**MAN (Manfaatkan):** Explains how to utilize waste: Type 1 for composting, Type 2 for recycling or donation, and Type 3 for disposal at TPS/TPA.  
 It also includes a call to action: 'Mulai gerakan #KangPisMan dengan aksi #BandungPisahkanSampah' and a section 'Kenapa perlu?' listing benefits like reduced disease, cleaner homes, and improved waste management.

Figure 2. The Kangpisman Campaign. (PD Kebersihan Kota Bandung 2020)

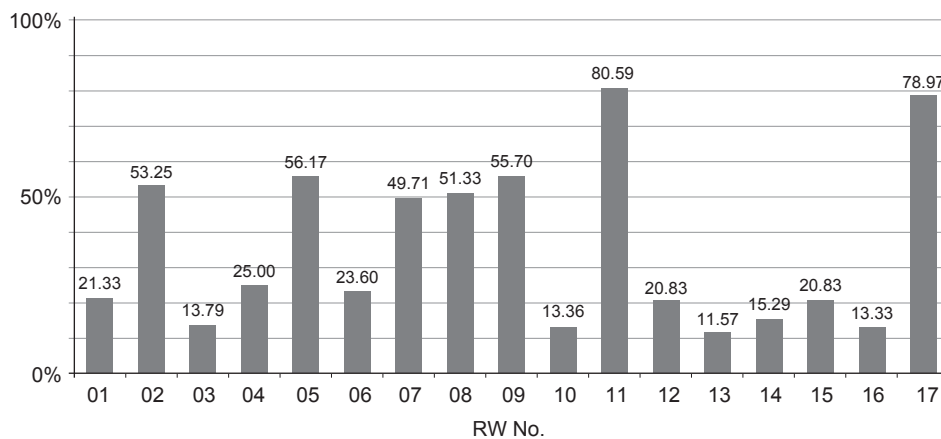


Figure 3. Level of Adherence to Residents' Waste Separation in Kelurahan Sukamiskin. (Adapted from DLHK Kota Bandung 2020)

**Table 1. Amount of Organic Waste that is processed and utilized in Kelurahan Sukamiskin.**  
(Adapted from DLHK Kota Bandung 2020)

Name RW	April	May	June	July	August	September	October	Total (kg)
01 Simpangsari	490.10	980.00	1,671.00	2960.00	3,050.00	3,080.00	3,392.00	15,623.10
02 Banjirsari	0.00	469.40	1,653.40	2447.00	2996.00	1,929.00	2,854.00	12,348.80
03 LP Sukamiskin	0.00	0.00	27.00	11.00	8.00	67.00	94.00	207.00
04 Pesant Ren	0.00	102.18	586.50	772.00	756.00	878.00	996.00	4,090.68
05 Mekar Jaya	168.86	639.00	111.00	2,373.00	2,033.00	2,526.00	3,072.00	10,922.86
06 Neglasari	0.00	0.00	1,210.00	1,537.00	1,363.00	1,804.00	1,680.00	7,594.00
07 Aspol Sukamiskin	0.00	31.00	1,798.50	1,635.00	1,544.00	1,377.00	1,067.00	7,452.50
08 Mekarsari	57.50	53.00	371.50	836.00	538.00	1,118.00	1,289.00	4,263.00
09 Arcamanik Endah	408.00	508.00	482.00	1,468.00	1,107.00	1,098.00	2,102.00	7,173.00
10 Arcamanik Endah	0.00	0.00	0.00	687.00	1393.00	1,150.00	1,230.00	4,460.20
11 Cipagalo	0.00	0.00	536.00	1,211.00	1088.00	931.00	1,645.00	5,411.00
12 Arcamanik Endah	70.66	63.00	219.50	1098.00	674.00	1,030.00	1,050.00	4,205.16
13 Arcamanik Endah	66.75	1,564.20	2,331.06	1,602.00	2,265.00	2,598.00	2,997.00	13,424.01
14 Arcamanik Endah	0.00	0.00	263.50	1,624.00	1,690.00	1,698.50	2,547.00	7,823.00
15 Arcamanik Endah	0.00	52.00	85.00	764.00	683.00	1,113.00	1,147.00	3,844.00
16 Pos Giro	0.00	45.18	78.00	195.00	299.00	417.00	555.00	1,589.18
17 Sarimas	0.00	20.00	244.00	989.00	1,226.00	1,316.00	979.00	4,774.00
<b>Sukamiskin</b>	<b>1,261.87</b>	<b>4,526.96</b>	<b>11,667.96</b>	<b>22,209.00</b>	<b>22,713.00</b>	<b>24,130.70</b>	<b>28,696.00</b>	<b>115,205.49</b>



**Figure 4. The tonnage of Bandung City waste disposed of at the Sarimukti Landfill.**  
(PD Kebersihan Kota Bandung 2020)