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BEST PRACTICE

ULI Peduli Foundation

Community-based Solid Waste Management in Surabaya

Learning the process of community-based solid waste management



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Composter bins at the front yard of neighborhood hall of Jambangan Village in Surabaya.

CHALLENGE As an industry that requires clean water, PT. Unilever Indonesia Tbk., a private company located in Surabaya has been making serious efforts to keep the water of Surabaya River clean, since the river is one of the main water supplier for the city. Their commitment resulted in an initiative called Clean River Program (*Program Kali Bersih*).

INITIATIVE ULI Peduli Foundation was established by PT. Unilever Indonesia as part of the company's commitment to the environment and sustainable development. The activities of the Clean River Program were started in Jambangan village, which is located in the flood plain of Surabaya River, and strategically close to the company. ULI Peduli together with Surabaya State University (*Universitas Negeri Surabaya - UNESA*) started to work on a village mapping study in several villages within the project site of Clean River Program to assess suitable programs for the community. Coincidentally, one of UNESA lecturers, Mrs. Winarsih lives in Jambangan and has a strong desire to make the environment clean and beautiful. She is actively involved in local resident meetings and well known by many people. Mrs. Winarsih and ULI Peduli Foundation began to work together to develop Jambangan village.

After reviewing project proposal of the local community, ULI Peduli Foundation started solid waste-related activities i.e. sorting the solid waste at the source, distributing 3,000 garbage bins and 77 partitioned garbage carts, and producing village-scale compost. Solid waste sorting was introduced to husbands and wives through meeting forums such as Family Welfare Movement (*Pendidikan Kesejahteraan Keluarga - PKK*), Koran recital group, as well as monthly neighborhood and village regular meetings. All garbage bins was distributed to all houses in Jambangan sub district. Each house received two garbage bins, one for wet waste and the other for dry waste. Besides, the partitioned garbage cart functioned to separate dry waste from the wet waste from its source at household level.

Temporary disposal site (*Tempat Pembuangan Sementara - TPS*) was used to produce village-scale communal compost with wet waste grinder machines provided by Human Settlement Infrastructure Development Project of East Java (*Proyek Peningkatan Sarana dan Prasarana Permukiman - P2SP*). The waste was finely chopped and loaded into the communal compost maker (9 cubic meter capacity). The end result is compost for home usage or for sale. Dry waste was collected to be sold to the recyclables middleman while the remaining

unused waste was taken away by local Sanitation Department and brought to final disposal site (*Tempat Pembuangan Akhir* - TPA). Besides P2SP East Java, the Sanitation Department of Surabaya also supported the solid waste pick up from the TPS to the TPA, while ULI Peduli and local Sub district Office participated in funding the TPS operational costs. The community members sorted the solid waste at the source and UNESA provided training to the TPS operators and wider community members.

However, after three years the activity was far from perfect. The wet waste could not directly be processed into composts since it was still mixed with dry waste. ULI Peduli project evaluation showed that the activity did not go well because of the following reasons: many community members did not know that their neighborhood was a model area for waste management; garbage bins and partitioned garbage carts were not used and maintained; the community members did not care with the project, did not participate in the project and felt no ownership to the donated goods.

ULI Peduli Foundation changed the approach by creating a small project in RW 03 (*rukun warga* - community unit), focusing the activities on solid waste management and its supporting program, such as group study and tree-planting activity for students. They identified community members and encouraged the establishment of a community group who truly cared about and were willing to manage solid waste in the neighborhood. ULI Peduli and P2SP worked together to make a household-scale compost maker using garbage bins. Around 200 units of simple compost maker were distributed to committed community members. Mrs. Winarsih and ULI Peduli delivered a training on operating and using the compost maker. They were supported by two other community members - Mr. and Mrs. Abu Bakar (Head of a neighborhood unit). Information dissemination was conducted through regular community meetings, distribution of brochures, movie screenings and direct meetings with the community. The community hall of RT 05/RW 03 became a meeting place for community members of RT 03 (*rukun tetangga* - neighborhood unit), where the activities of solid waste management are introduced to larger public, and group study for the students were conducted.

In two months, this activity ran well. Success indicators among others were: decreased solid waste volume brought to the TPS; waste sorting becomes a habitual action, increased amount of dry waste such as like plastic bottles, newspapers, scrap papers, cardboard boxes, and scrap clothes, which were collected at the community hall and sold. afterwards The rewards gained from the sale is used for community needs. It was Mrs. Winarsih who started this idea to get the community members interested in managing solid waste.

This type of activity was relatively more successful because the community members felt that their children are being cared for through group study program in the community hall. Therefore, when the solid waste management program kicked off, a lot of community members were willing to take part. As a means to further motivate the community, a clean neighborhood competition is held annually.

RESULTS Cooperation between Mrs. Winarsih and ULI Peduli Foundation resulted in the decrease of solid waste volume brought from solid waste source at household level to the TPS: from 15 carts each day to 11-12 carts. The compost maker was very useful as the community used the compost for home gardening. In addition to that, the residents also developed home nursery using plastic bottles as plant pots, then the seedlings are sold to increase their income.

The key for the success of this program lies in the intensive assistance by community figures and daily visits to the project locations by ULI Peduli Foundation, developing environment cadres at household level such as Mrs. Winarsih and the Abu Bakar couple who sustain the efforts of ULI Peduli Foundation. Another important contribution was the financial support from PT. Unilever Indonesia Tbk., and garbage pick-up fee that the community members are willing to pay to manage the solid waste.