



2018 ZERO WASTE CITIES CONFERENCE BANDUNG, INDONESIA

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2018

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INTRODUCTION

GAIA is a worldwide alliance of more than 800 grassroots groups, non-governmental organizations, and individuals in over 90 countries whose ultimate vision is a just, toxic-free world without incineration.

In support of efforts promoting zero waste in Indonesia, GAIA, Yayasan Pengembangan Biosains dan Bioteknologi (YPBB) and the Alliance for Zero Waste Indonesia (AZWI) are cordially inviting you to the 2018 Zero Waste Cities Conference in Bandung, Indonesia.

Indonesia has committed to significantly reduce marine plastic waste, pledging a \$ 1 billion investment annually to decrease pollution by 70% in eight years. The national government announced this commitment during the 2017 World Oceans Summit early last year. We believe that Indonesia can pursue this commitment by taking the road to zero waste rather than waste resources in incineration and other burning technologies.

Scheduled on 5-7 March 2018, the 2018 Zero Waste Cities Conference will gather government officials and zero waste practitioners to discuss how the zero waste approach can be adopted as a cost-effective and people-centered solution to local waste problems.

As one of the regional collaborators for the Zero Waste Cities project, Penang and Zero Waste Cities collaborator Consumers Association of Penang are invited to present ongoing efforts toward zero waste.

**2018 zero waste cities conference
BANDUNG, INDONESIA**

KOTA CIMAHI, BANDUNG

ZERO WASTE PROJECT



**ENVIRONMENTAL HEALTH ASSISTANT
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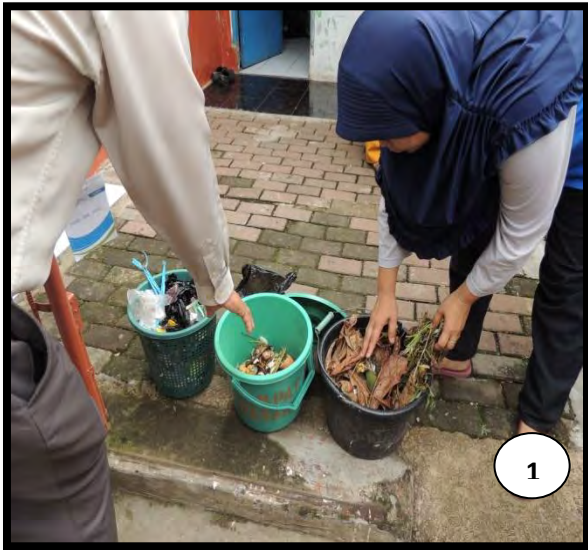
A VISIT TO RW 18, KELURAHAN PADASUKA, KOTA CIMAH



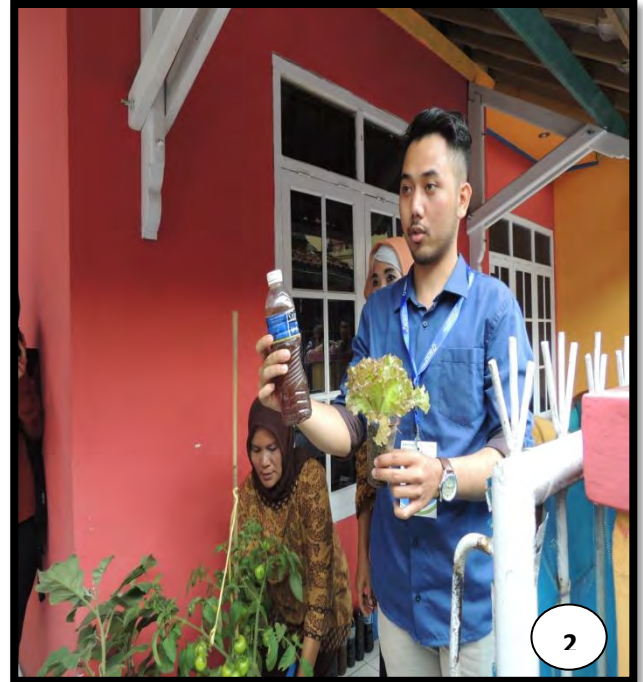
This visit was done on 6 March 2018. Participants of Zero Waste International Cities Conference were welcome by the villagers and The Head Of Kelurahan Padasuka gave a small welcoming speech together the explanation of the zero waste activities in Padasuka that just started end of 2017.



RW 18, Kelurahan Padasuka, Kota Cimahi is a zero waste pilot project in Kota Cimahi. All zero waste activities was done by the villagers themselves. Waste collection from door to door is done twice aweek. Segregation will be done during the collection. It was segregate for three groups, food waste, garden waste, recycleables and non recycleables. Recycleables items will be sell to the recycle bank, while the food waste will turn into compost. For the non recyclables waste, which can turn into up cycle product they will make it into crafts.



Pic 1 &2 : Segregation by villagers
Pic 3&4: Collection from house to house and segregation at source



Pic 1&2: Composting Method that is use by villagers and liquid fertilizer that is prepared by villagers.



Pic 3&4: Composting method that is used here is by digging hole in the ground and all the food waste will be put inside, layered by garden waste alternately.

Open space in Padasuka is used for community farming. The owner of the land had agree to turn his land into community farming. Wall along the road is set up with vertical farming that is sponsored by the leaders from Cimahi.



RECYCLE CENTER OF KOTA CIMAHI (BANK SAMPAH INDUK KOTA CIMAHI)



This recycle centre well known as BANK SAMPAH is monitored by staff that is appointed and paid by the government. All items will be categorized before it will be sell.

A VISIT TO A ZERO WASTE PROJECT IN SUKALUYU

7 MARCH 2018



Kelurahan Sukaluyu is one of the villages that took part in zero waste projects that started in 2017. This village got 174 houses with 800 peoples.



This is an open park in this village, where the composting and the community farming took place.



The cleanliness of this park is being taken care by the workers that have been hired by the government and also by the villagers themselves.

COMPOSTING METHOD IN KELURAHAN SUKALUYU (BIOPORE)



Biopore is an invention by *Dr. Kamir Pariadin Broto*, Msc. Farming from Faculty of Bogor Farming Institute. It is alternative technology for absorbing rain water. Then after the Biopore Absorbing Hole (BAH) has been made it can be filled with organic rubbish. It needs to be add again and again for the contents will be getting moldiness because of decrease. The compos which will be produced by this hole can be taken for fertilizer in the end of dry season.

Bio pore can be called "The Palace for worm" although its dweller is not only worm, but because the organic content is rubbish, so it will stimulate small animals, such as ant, worm, termites come into the hole and making bio pore as small tunnels, so that the water can be absorbed soon.

These Bio pore Absorbing Hole (BAH) can be made in or at

- The base of the drain (ditch) which is formerly using to draw away the rain water,
- The land near the park, car parking, the garage,
- The basic channel around the trees,
- The yard, the garden, un-irrigated agricultural field.

To make this hole a a kit named The Bio Pore Absorber has been designed. This kit is also can be use to dig out compost from the hole after it has been formed (after the rubbish become the compost).

COMPOSTING METHOD IN KELURAHAN SUKALUYU (LUBANG KOMPOS)



Lubang Kompos (compost hole) is one of the method is used in Kelurahan Sukaluyu. In this surrounding area, there are few compost hole can be seen. A hole was dug up and the villagers, who want to dispose their kitchen waste, will put in their kitchen waste in this hole and will be layered with garden waste. This process will be repeated again and again till the compost hole is full, and it then will covered with soil. A date is written at the compost hole, so that, they know when to harvest the compost.

COMPOSTING METHOD IN KELURAHAN SUKALUYU (BATA TERAWANG)



Bata terawang is a composting method where the bricks are arranged with holes. Kitchen waste and garden waste are put alternately from the top, and when it is matured, it will be harvested from the hole that is purposely designed for the compost harvesting. The harvesting hole is covered with a sack to prevent the waste from going straight to the ground before it is matured. During harvesting, it is quite hard to dig out the compost, because the compost is hardened down there.

COMPOSTING METHOD IN KELURAHAN SUKALUYU (BARREL COMPOSTING)



Food waste and garden waste will put in this barrel alternately. There is a pvc pipes with holes inside this barrel for the aeration process. Another barrel is used just for composting the garden waste.

COMPOSTING METHOD IN KELURAHAN SUKALUYU (BAMBOO STRUCTURE)



Sukaluyu peoples build up, a bamboo structure as a compost well. The concept is still the same, where food waste and garden waste is alternately put in this bamboo well. During the visit it is not fully fill yet.

RECYCLE CENTRE IN SUKALUYU

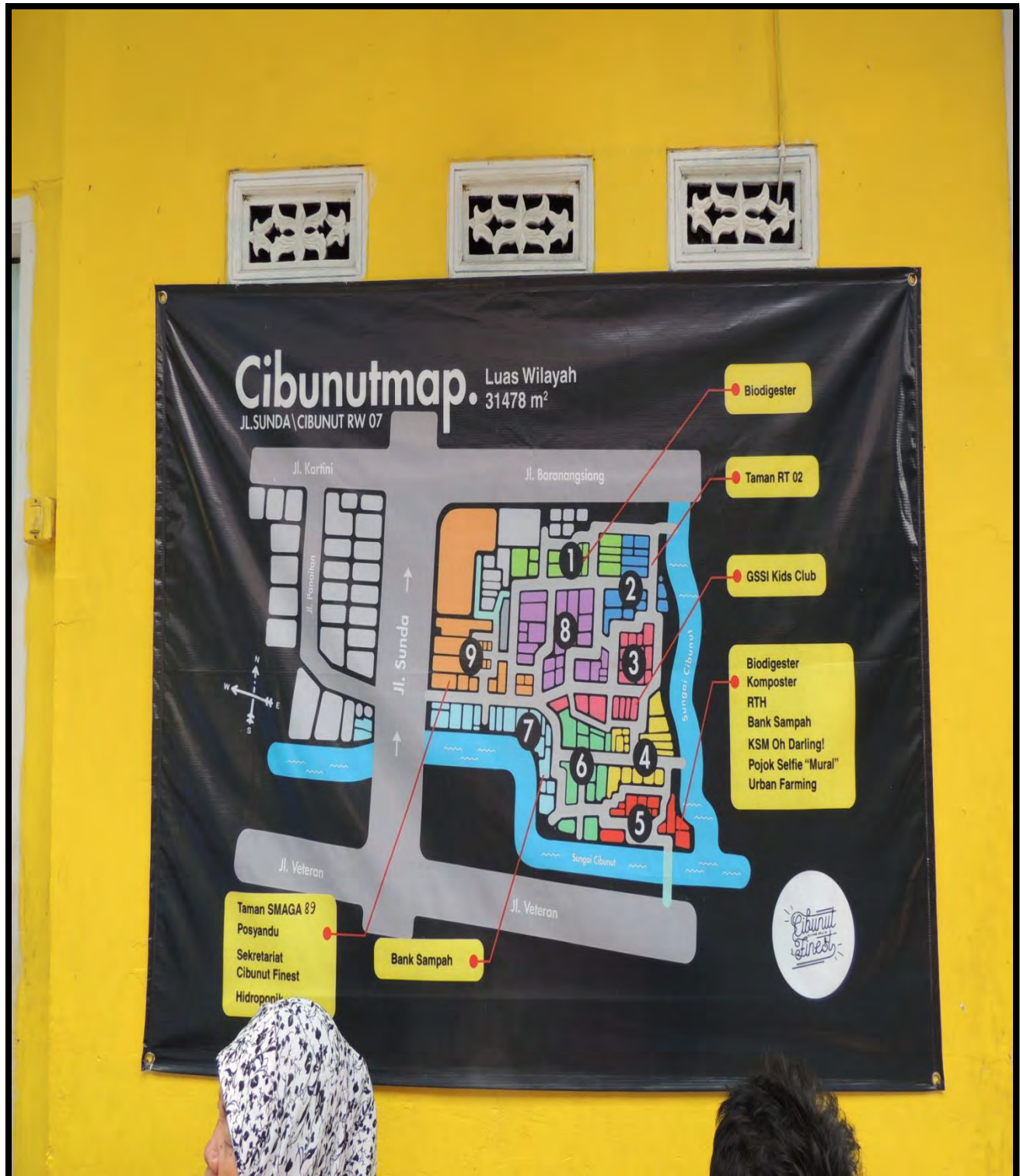


BIODIGESTER IN SUKALUYU



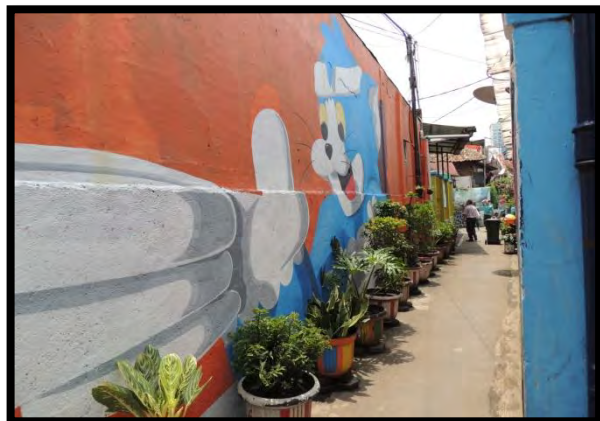
In Sukaluyu, they got 3 biodigester that supply biogas to three houses. These biodigester is support from the government for the Zero Waste Project. This biodigester can only supply 1 hour biogas depends on the quantity of the foodwaste.

VISIT TO A ZERO WASTE PROJECT IN CIBUNUT



Map showing the zero waste activities took place in Cibunut

VISIT TO A ZERO WASTE PROJECT IN CIBUNUT (MURAL ON THE WALL)



In Cibunut, from wall to wall full with murals drew by youths from Cibunut itself. The paint was sponsored by private company (csr project.) Some of the paintings were drawn by volunteer's artist. Map above shows that murals in Cibunut had their own theme.

VISIT TO A ZERO WASTE PROJECT IN CIBUNUT (COMPOSTING AND RECYCLING CENTRE)



In Cibunut, here is the place where all the recyclables collection and the composting took place



This shed where the recyclables are kept and segregated.

VISIT TO A ZERO WASTE PROJECT IN CIBUNUT (COMPOSTING METHOD)



Composting method in Cibunut same as it was carried out in Sukaluyu. They used Bata Terawang composting concept and biopore composting.

VISIT TO A ZERO WASTE PROJECT IN CIBUNUT (BIODIGESTER)



There is only one biodigester in Cibunut, picture above shows the biodigester, while picture below shows how it was connected to a house.

THINGS CAN BE APPLY BY MPSP

1. MPSP Tower become free plastic packaging such as:
 - 1.1. No plastic bags when buying from the 'koperasi' or the canteen
 - 1.2. Bans on usage of **STRAWS** in the buildings
 - 1.3. No more bottle water in the buildings (including meeting rooms-everybody should bring their own tumbler.
 - 1.4. Take away food should reusable used food container instead of plastic Packaging
2. Composting on canteen waste in MPSP
3. Rooftop farming/vertical farming in the open and unused area surrounding the buildings.
4. Approach to community in practicing Zero Waste by applying 10 steps that have been used by Mother Erath Foundation in Philippines(Page 23 -25).
5. Vertical Farming can be apply in Community which have less open space.
6. MPSP should take the opportunity to be co organizer with Global Allience For Incinerator Alternative for **2019 Zero Waste Seminar**. MPSP can invite communities, government agencies, schools and ngo nationwide to join the conference. A lot of things can be learnt.

