

Garbage in Paradise

Written by Tang Yau-yang
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In April 2007, a barge crossing from Penang Island to Seberang Perai, on the Malay Peninsula, sank into the depths of the Strait of Malacca. Tons upon tons of the cargo--garbage from the heavily urbanized island--floated to the surface of the sea, seriously polluting the surrounding waters. This incident spotlighted an issue that Penang Island and other densely inhabited metropolitan areas in Malaysia had dreaded to face but had not been able to wish away: exporting their garbage to somebody else's backyard.

Throughout its lifecycle, garbage never stops taking a heavy financial and environmental toll on Malaysia. Garbage disposal drains 400 million ringgits (US\$126.5 million) out of Malaysia's coffers each year. Then the garbage in landfills, 70 percent of which are near streams or watersheds, continues the onslaught by seeping, especially in the rainy season, into streams and rivers to foul up drinking water and the aquatic ecosystem. Meanwhile, methane and other greenhouse gases escape into the air, adding to more atmospheric warming.

To counter this gloomy picture, many citizens in Malaysia, from Penang Island to Kuala Lumpur, are taking action to raise public awareness of the environmental impact and costs of garbage. They are also working to reduce the amount of garbage by doing and promoting recycling. Although relatively few in number, these people are marching steadfastly forward, determined to make a dent in this problem. They are Tzu Chi recycling volunteers.

Prosperity on Penang Island seems quite easy to see from the numerous vessels calling at its natural deepwater port, whose water channels allow the vessels to connect with more than 200 harbors around the world. One of the water channels, however, is bringing to fore the island's biggest headache--the problem of garbage.

Every day, 300 trucks collect garbage throughout Penang Island. They go to Batu Maung and dump their loads into 15-ton containers, which are then pulled to a dock and loaded onto a large barge. The barge makes three round trips a day to the Pulau Burong landfill in Seberang Perai across the strait to dispose of the 600 tons of garbage that the residents and tourists on the island generate each day.

Doesn't Penang Island have a landfill of its own for a more convenient and more cost-effective way to dispose of its garbage? It certainly used to, at Jelutong near the sea, but that site was closed to household waste in 1995 after 22 years of active operations. The mountain of garbage at Jelutong continues to disintegrate and discharge foul-smelling gases into the air.

It isn't that Penang Island likes the trouble and expense of hauling its garbage elsewhere. After all, it costs the island 130 ringgits (US\$41) to dispose of each ton of garbage shipped to Pulau Burong. But the city simply has no viable alternatives. The island has not mustered enough political will to change the situation, so it keeps shipping its garbage out day after day.

However, the barge that sank en route to Pulau Burong in April 2007 brought renewed urgency to the matter. In Pulau Burong, fishermen protested over the fouled waters and the impact on

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their harvest, and legislators criticized the inadequate wastewater treatment system at the landfill. They were unequivocal in their disgust: "Penang Island, stop giving us your garbage!" Garbage has become a crisis that Penang Island has to face.



A simple idea started it all

Along the shores, wooden houses sit on stilts, which usually stand in water when the tide comes in. The houses line raised boardwalks that wind along, partly on land and partly along the beach or over the ocean. Usually, the houses connected by one boardwalk were built by people with the same last name. Chinese immigrants built and lived in such houses when they came to the country in the mid 1900s. People called those boardwalks Chen Bridge, Wang Bridge, and so on. You can think of them as jetties, as a sign at the Chew Jetty (Chew bridge), literally "surnamed Chew bridge") suggests, with houses built along and around. What are left of those old houses and jetties--the historical Pengkalan Weld--are now a tourist attraction on the island.

Those houses, still occupied, are also where Tzu Chi volunteers on Penang Island have been visiting once a month for the last seven years to promote the concept of environmental protection and to collect recyclables from the residents.

Lim Leng Chiok (), 70, who lives on Yang Bridge, called out for the Tzu Chi volunteers and started pulling things out of her house. Old newspapers were stacked in high but neat piles in her small living room. The green bucket in the hall was a trove of rinsed cans and bottles. The plentiful recyclables from Lim, her family, and her neighbors in Pengkalan Weld kept the volunteers busy but happy. This site is the volume leader in the area.

"My oldest son works at a newspaper," Lim told me. "I ask him to collect old papers and bring them home. My neighbors also give me theirs. So I usually have quite a lot of newspapers for Tzu Chi." Then she started sobbing. "It's so nice of Tzu Chi people to do recycling and use the proceeds to help pay for my son's dialysis.... I'll do my bit to help with recycling."

There are many patients in need of dialysis in Malaysia. Ten years ago, about half of dialysis patients died because they couldn't afford the cost of the treatment. In 1997, volunteers on Penang Island opened the Tzu Chi Dialysis Center to provide free treatments for destitute patients.

"The expenses for operating a dialysis center far outpaced what we could bring in from charity sales and fundraising on the street," said Teoh Paik Lim (), Tzu Chi recycling coordinator on Penang Island. "When we thought of what the Master said--'Turn garbage into gold and gold into love'--and we decided to engage in recycling to raise the money. After all, recycling is something that everyone can do every day." Teoh hopes the recycling program can tap into the strength of many more people than bake sales and street fundraising ever could.

So the volunteers set out to do recycling, something that they knew little about. What they did have to keep them going was a firm belief that they were doing something worthwhile. They

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kicked off their recycling program in 1997 with 200 people going door to door to spread the word on recycling. Back then the Penang Island government had not started promoting the importance of environmental protection, and the public had been neither aware of nor much interested in recycling. This had translated into a dismal overall recycling rate of .05 percent.

"When we started the program, we didn't know much about the greenhouse effect and global warming. All we knew was that the sale of recyclables brought in money to save kidney patients," said Teoh.

That simple appeal alone, however, was enough to resonate with many people, Tzu Chi members or not, who responded by saving their household recyclable garbage. Tzu Chi volunteers made scheduled rounds to collect from people's homes.

An expanding program

In addition to the scheduled pickups, the volunteers added a new program that would blanket a whole community once a month.



One Sunday morning, a small group of Tzu Chi volunteers started working from the top floor of a 17-story building. They knocked on doors and asked residents for recyclable items. Then they placed what they received near the central stairwell before knocking on other doors down the hall. Another group of volunteers worked near the stairwell, consolidating the heaps of trash and taking them down the stairs and out to waiting trucks. When they had finished one floor, they moved down and worked the floor below.

That scene is typical of the once-a-month recycling day program that Tzu Chi volunteers undertake to collect recyclable trash from people's homes. If a family has not started recycling, the volunteers use the occasion to discuss the reasons why recycling is crucial to the earth.

The monthly recycling days are being gradually introduced to more communities. As new sources and volunteer workers come online, Tzu Chi's recycling program has been gathering strength year by year.

"Many people sort out their garbage and keep it in their homes for us to collect, even though their homes don't have much space," said Teoh. "I can't help feeling moved by those people. It is people like them who propel me to work even harder at recycling. We are also most grateful to the companies who not only buy the recyclable trash from us but also provide trucks on recycling days to haul it away."

Other keys to success

Although people are willing to keep their sorted items at home until the monthly collection by Tzu Chi volunteers, many of their houses quickly fill up, forcing the residents to forgo saving the

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recyclables for the remainder of the month--a lost opportunity to reclaim more trash. Furthermore, houses full of trash invariably cause some inconvenience even to the most devoted participants. "To minimize the trouble for the residents, it is imperative that we remove those items from people's homes as soon as possible," noted Teoh.

So he went on a detail planning and scheduling campaign and initiated a new collection schedule. As a result, every day there are volunteers collecting from people's homes on scheduled routes. This is a wonderful idea all the way around. First, people's homes are now visited, perhaps not daily, but certainly more frequently than just once a month. Therefore people can clean out the clutter sooner and free up space in their homes for more new recyclables. Second, spread throughout the month, the daily collection scheme can enable more volunteers to work around their scheduling conflicts and take part in the recycling program. More volunteers are participating in collecting more recyclables, possibly from more people's homes.

Still, some potential volunteers were left out of this process, especially people who worked during the day. To accommodate their needs, Tzu Chi added evening hours, from six to nine, to its recycling program.



Siow Eik Kwang (許宜光) is an active member of the evening program. During the day, he is a manager at an electronics company. However his heavy workload during the day hasn't slowed him down a bit in the evenings when he puts on his Tzu Chi volunteer uniform and drives a pickup truck to collect recyclable trash at people's homes. On Saturdays, he also pushes a cart around the grounds of the Bukit Jambul Shopping Center and collects recyclables from merchants or picks things up from the floor.

"When I am off work, I spend most of my free time doing recycling. I used to play tennis. Now recycling has replaced tennis as an exercise of a more consequential kind," Siow said. He should know. He is an ex-scout who has always loved the outdoors and appreciates the significance of sustainable human behaviors. However, once he started his working career, he found it very difficult to get involved in activities that could help preserve the environment. "Now, as I do recycling, I add up the kilos of carbon dioxide that I am keeping out of the atmosphere. It gives me a nice sense of accomplishment and satisfaction."

Make recycling everybody's business

"What we are after is not so much to maximize the volume of recyclable trash as to spread the notion that you should always be mindful of the environmental impact behind everything that you do," Teoh commented. "Make this thought process a subconscious part of everybody's life, and everybody can begin to lower his or her negative environmental impact."

"The more I work with recycling, the more I appreciate why the Master said that we are running

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out of time." Teoh said that in the earlier years of the recycling program, they took the "charity" angle to get people to join in the ranks of recycling volunteers: Proceeds from the sale of the trash would be used to help those in need. That was fine and well except that they weren't reaching enough people. Most of the people who took part in the recycling program were Tzu Chi members. They needed other people to join in, too, which, they figured, could be achieved if people were well informed of the nature and magnitude of the pressing issues facing the earth. "Consequently, we are now running the Tzu Chi recycling program from an educational angle: The more people know about the problems, the more they will pitch in."



Teoh recounted his experience with the first community gathering that he organized to introduce the concept of recycling to that community. He had told as many people about it as he could, but "only my family and I showed up," Teoh remembered. "Although I felt extremely down, I persisted. Thankfully, Brother Sim Boon Peng (曾文慶) later joined in, and he was able to bring more people to the community gatherings. The gatherings work very well, so we have achieved a 20 percent drop in the garbage volume in our communities."

As more people supplied their so-called recyclables to Tzu Chi, more of their other garbage was handed over too. Many people eagerly gave their bags of waste to volunteers, who were unaware that they had also put some non-recyclable garbage in the bags. Other people mixed recyclables of all types into the same bag. Either case was quite troublesome for the recycling program because it took volunteers a lot of time to go through each of the bags and either pick out and throw away the real garbage or properly sort out the recyclables. This waste of time and effort could have been avoided had those people known how to sort things out in the first place.

Apparently, the lectures and information sharing at those community gatherings had fallen short of fully educating the public. More creative ways were needed to fill the gaps. Sim Boon Peng thought that the best way to improve the efficiency of recycling was to encourage people to sort garbage out in their own homes. But how do you create a home environment that lends itself to more convenient sorting and storing of items? How about garbage bags with racks to hold them in place? In this way, these neat and eye-pleasing sets would replace the sagging and unsightly bags that you usually find lying on the floors of people's homes, and sorting out and storing recyclables would be a cinch. All that people would need to do was drop their items in the appropriate bags. In the end, Sim made not one but three versions of those handsome bag-and-rack sets, each version an improvement over the last (see the article on page 40).

Since then Tzu Chi volunteers have been promoting and giving out those bag/rack sets to the public. Individuals take them home, and even some businesses are using them, thus increasing the sources of recyclables. Sim even took his brainchild to a nearby school, where he won the support of principal Yeoh Soon Kheng (葉文興) and teacher Tan Ah Cheng (陳阿成). Tan asks her students to sort out garbage in the appropriate bags. She checks their efforts every day to make sure they are doing it and doing it right. She thinks little of the extra time that this takes her: "It's important to teach students when they're still young to think twice before throwing anything away. Only when people cherish the earth's resources can our environment be preserved."

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The report card

Penang Island, like any other locale, undoubtedly still has lots of room for improvement when it comes to being earth-friendly. Nevertheless, the island's progressive environmental protection measures are showing the way for the rest of the country. Malaysia officially started its recycling programs in 2000. In eight short years, the recycling rate of Penang Island shot up from .05 percent to 18 percent, the highest in the nation. Tan Sri Dr. Koh Tsu Koon, former chief minister of Penang, said that the state had Tzu Chi to thank for its shiny report card in recycling.

When you know you are doing something worthwhile, you don't mind how much effort it takes. It is this realization that keeps Tzu Chi recycling volunteers in Penang Island going.

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