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## Maintaining Urban Cleanliness: A New Model

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### Abstract

The purpose of this research paper is to propose the Anti-Litterbugs Campaign as a more viable alternative to improve and maintain urban cleanliness in Malaysia compared to the conventional cleanliness campaign. Lessons drawn from the implementation of the conventional cleanliness campaign and the Anti-litterbugs Campaign suggests that the former failed to maintain urban cleanliness because it did not focus on the actual problem. Unlike the conventional approach which targets rubbish, the Anti-litterbugs Campaign targets the real cause of the problem, that is, the litterbugs. Fully implemented, the Anti-litterbugs Campaign has a potential to improve and maintain urban cleanliness.

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### 1. Introduction

Lack of cleanliness in a city is often blamed on the local authority since ensuring urban cleanliness is one of the primary responsibilities of a local authority. Urban cleanliness issue is a familiar glitch in Malaysia. Although littering is considered an inappropriate behaviour, it is still socially condoned, and not condemned in Malaysia. This is probably because the culture of non-littering has not been fully developed. Without strong social sanction for litterers, littering is tolerated. Since littering is rampant in urban areas, maintaining urban cleanliness constitutes a challenge to local authorities. Some studies

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suggested that the presence of litter can encourage littering (e.g. McAndrew, 1993; Huffman et al., 1995). McAndrew (1993) argued that litter often begets litter. People also tend to engage in littering (dumping) without much thinking (Ockels, 2003). There are various ways to promote urban cleanliness, ranging from antecedent strategies and to consequence strategy (Huffman et al., 1995). Antecedent strategies consist of prompts/verbal or written messages, awareness/education, modelling or demonstrations, goal-settings or commitment strategies, engineering or design procedures (Geller et al., 1982 in Huffman et al., 1995). Consequence strategies include rewards and punishments (Huffman et al., 1995). Both antecedent and consequence strategies were found to be generally effective in reducing litter. According to Epstein, Hammett and Collins (1995), concerted and integrated efforts are more likely to succeed in reducing littering. Education, enforcement, engineering (infrastructure) as well as public participation are important to effectively curb littering. The absence of one element will render the others less effective. For example, an education program alone will not lead to sustainable long term changes. Furthermore, non-littering message has to be targeted at individuals who will likely produce litter.

The conventional approach used to promote cleanliness in towns and cities in Malaysia is through cleanliness campaigns. A newer approach, the Anti-litterbugs Campaign or in short Anti Bugs Campaign (ABC), had been proposed as an alternative approach to improve and sustain cleanliness in urban areas. It was invented and implemented by the Kota Kinabalu City Hall (KKCH) in 2008 following the ineffectiveness of the war on litter previously implemented by the authority. The Kota Kinabalu City Hall declared war on rubbish in 2003. The Mayor led a full force of more than 1,200 staff to pick up rubbish along the roadside from Kota Kinabalu right to the boundary with Tuaran. It was a massive clean-up activity conducted by the local authority.

While there is little study done on the urban cleanliness efforts in Malaysia, one such study suggested that conventional cleanliness campaigns conducted by many local authorities in Malaysia were not successful. "After the general cleanliness campaigns elsewhere in Peninsular Malaysia, the state of cleanliness gradually degenerated again" (Goh, 2002, p. 99). Chua (2006), on the other hand, suggested that the cleanliness campaign undertaken by the Kota Kinabalu City Hall was unsustainable.

The main purpose of this research paper is to propose the Anti-Litterbugs Campaign as a more viable alternative to the conventional cleanliness campaign to improve and maintain urban cleanliness in Malaysia. Methodologically, this research is qualitative in nature. Data were obtained through informal interviews with local authority officials including enforcement officers, newspaper reports, official reports and observation. Experience and lessons from the implementation of both the conventional cleanliness campaign and the Anti-Litterbugs Campaign by the Kota Kinabalu City Hall are drawn to compare the relative effectiveness of both models.

## **2. The conventional urban cleanliness campaign model**

The conventional cleanliness campaign is an approach focusing on creating cleanliness awareness among the people through gotong royong (reciprocity or mutual aid). A typical case involves a selection of an area that is full of rubbish as a site for gotong royong. However, this approach seems to have failed (Goh, 2002; Chua, 2006). Although such an event which is participated by local community could succeed in a short term as suggested by the short term success of some beach clean-up program, it is unlikely to succeed in the long term without comprehensive participation by the whole community (Uneputty, Evans and Suyoso, 1998). Areas that had been cleaned earlier often get dirty again in a short period of time.

Several reasons contribute to the failure of cleanliness campaigns to maintain urban cleanliness in Kota Kinabalu and in most urban areas. Firstly, the cleanliness campaign, as the name implies, is a cleaning campaign. It focuses on cleaning or sweeping and picking up rubbish thrown out by people

indiscriminately. The main intention of this campaign is actually to clean up the rubbish. This is evident from the routine mobilisation of the community by the local authority to do community work of gotong royong picking up rubbish during such campaign. In fact, as indicated above, cleanliness campaign and gotong royong are almost synonymous. A gotong royong cycle starts with the presence of litterbugs in an area. The area is obviously heavily littered. Because the area is dirty, it is naturally chosen as a site to have the gotong royong, whereby people from outside come together to pick up the litter. The number of participants can range from a few hundreds to a few thousands. After the massive cleanup, the place is clean, but not for long. Soon, it will be littered again and likely to be chosen for another round of gotong royong in the future (see Figure 1). The effort has managed to get rid of the rubbish for a while, but not the litterbugs. In fact, there are among the participants of the gotong royong who are themselves litterbugs. They throw rubbish indiscriminately during and after the event. For example, they actually throw all kinds of rubbish, such as cigarette butts, food containers, plastics bottles, tissue papers, or sweet wrappers everywhere. Organising such an event is not cheap. Free t-shirts and caps are usually given to participants, in addition to the provision of light foods and drinks. Such a costly effort is not only incapable of bringing any revenue to the local authority, but also fails to educate the participants on the proper ways to dispose their rubbish.

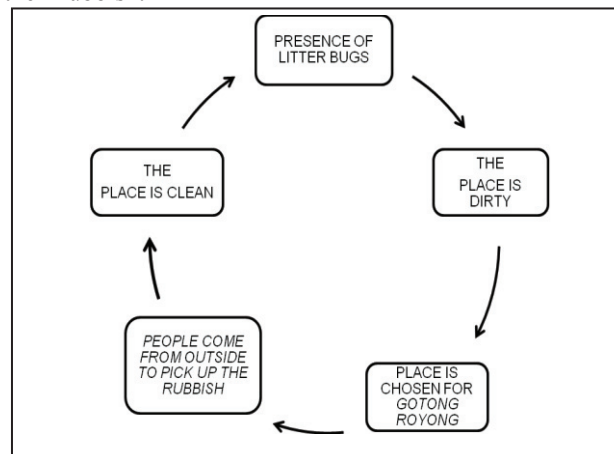


Fig. 1. The *Gotong Royong* cycle

Secondly, the conventional cleanliness campaign has no intention to seriously and systematically stop public littering. This is evident from the fact that while this campaign is ongoing, people continue to litter, and they are not being reprimanded. In fact, even the staff of the local authorities themselves litter, and they are unperturbed by such campaign. Furthermore, there is no serious attempt to condemn the act of littering apart from some general statements made during *gotong royong* speeches. The campaign relies heavily on billboards with ambiguous messages such as “please do not litter” or “love our city” or “the cleanliness of our environment is our responsibility”. However, ambiguous or not, sign alone is not adequate as shown by Horsley (1988), and therefore the campaign fails to fully promote awareness on the negative effect of littering either on the part of the public or on the part of the local authority staff themselves.

Thirdly, the campaign does not stress enforcement as one of its primary strategies. Enforcement is an important contributor to stopping (Epstein, Hammett and Collins, 1995). Although there are by-laws against littering, enforcement personnel are reluctant to enforce the by-laws due to several difficulties. For example, they have to talk to the person who litters and ask for his or her identification card before

issuing summon. The public tend to not cooperate, questioning the enforcement personnel's right to demand for their identification cards. Sometimes, they even tell off the enforcement officers, reminding them that they pay their rates, and that it is the responsibilities of the local authorities to clean-up the city. Proper identification and correct address are required, to enable the authority to bring the litterer to court in case he or she does not turn up to pay the compound. This is probably the reason why an enforcement officer of the Kota Kinabalu City Hall answered, "Yes, but on and off," when asked if they ever enforced the Anti-Litter By-laws.

Fourthly, the cleanliness campaign fails because it does not address the root cause of the problem, that is, the people who litter or litterbugs. Instead, it focuses on the litter, as evident from the authority's preoccupation with cleaning and collecting litters. Litters are just the symptom of the problem, not its root cause. Because the litterbugs know they are not the target of such campaign, they see no compelling reason to stop littering. Such campaign, in fact, confirms to their belief that littering is justifiable because it is a common phenomenon, and that it is the responsibility of the local authority to pick up rubbish. Without addressing the actual cause of the problem, maintaining cleanliness is difficult, if not impossible.

Fifthly, the campaign fails because it relies on one strategy only which is cleaning up. A campaign program involving more than one strategy is more likely to succeed. For example, verbal and role modelling can be effective as littering control techniques (Wagstaff and Wilson, 1988). Education, enforcement, engineering (infrastructure) and public participation are needed to effectively curb littering (Epstein, Hammett and Collins, 1995).

Lastly, every campaign is meant to send a message. The conventional cleanliness campaign fails because it sends the wrong signal to people. It is as if telling people to litter, as the authority would clean up the rubbish later. Instead of appealing to the people to stop littering, in the absence of any form of enforcement, the campaign is again signalling people to go on littering. In addition, because it is a cleaning campaign, people always see it as a campaign of the local authority, not theirs. As such, they don't have to participate in the campaign.

Surprisingly, although cleanliness campaigns are known to have failed, many local authorities in Malaysia seem to continue with this approach. One only has to type the name "cleanliness campaign" in the google search engine and it is not unusual to find that such campaign is being held everywhere in Malaysia. Similarly, there are various kinds of *gotong royong* organised by various local authorities as reported in the local newspapers. Due to the failure of the conventional cleanliness campaign, local authorities are incessantly caught in a vicious cycle of throw-first-collect-later. People throw rubbish, the authorities pick up the rubbish. People throw again and the authorities pick up again. People continue to throw and the authorities continue to collect (see Figure 2).

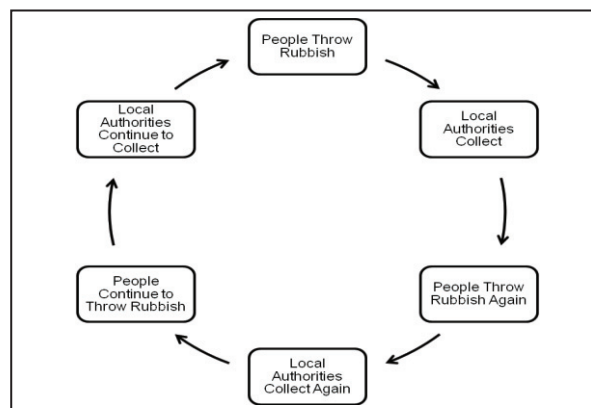


Fig. 2. The vicious cycle of throw-first-collect-later

### 3. The anti-litterbugs campaign model

The Anti-Litterbugs Campaign is a more integrated and systematic approach to reduce littering and thus promote urban cleanliness. It is a two-prong approach, combining awareness campaign and enforcement. It recognises the need for education as means to change environmental behaviour as well as facilitating change through infrastructural support, such as provision of rubbish bins. It has several components (see Table 1), carefully thought of strategies to address the problem of littering. It also emphasises the importance of continuous talking (verbal communications) about the campaign, instead of sign alone. The more people talk about the campaign, the more they don't litter themselves, out of embarrassment. The term 'litterbug' is purposely chosen to emphasise its derogative connotation.

Unlike the conventional approach of targeting rubbish, the Anti-Litterbugs Campaign targets the root cause of the problem, that is, the litterbugs. It was first introduced by the Kota Kinabalu City Hall in 2008, after previous cleanliness campaigns by the City Hall failed to produce significant improvement to the standard of cleanliness in Kota Kinabalu (Chua, 2006). The City Hall declared war on rubbish in 2003 to promote cleanliness in the city, but it failed to produce any positive outcome. The Anti-Litterbugs Campaign model has several features:

Table 1. Components of the Anti-Litterbugs Campaign

No	Component
1	Litter Free Premise (Litter Free Office, School, Village, Market, etc)
2	LiFE – Litter Free Event
3	Travel Announcement
4	Banners and Streamers
5	Road Show, Exhibition and Talk on Anti-Litterbugs Campaign
6	Table Talk
7	Report Littering from Vehicle
8	Distribution of Pocket Ash Trays
9	Open Letter to Smokers
10	Gotong royong to Fine Litterbugs
11	Anti-Litter Ambassador
12	Anti-Litterbugs Campaign in the Newspaper
13	Additional Duty of Security Guards
14	Continuous Enforcement
15	Pictures Before and After
16	Distribution of Dustbins
17	Weigh of Rubbish

#### 3.1. It targets the root cause of the problem

The campaign is clear on its target, the litterbugs or people who throw rubbish indiscriminately. They are the root cause of the problem. Apart from its derogative connotation, the term 'litterbugs' sends clear message to the litterbugs that they are the explicit target of this campaign. The Anti-Litterbugs Campaign

uses the catchphrase such as “Beware, You Are Being Watched” to convey a clear message that they are being targeted.

### 3.2. *It makes enforcement easy*

Lack of enforcement has been identified as one of the reasons for rampant littering, which in turn contributes to the lack of cleanliness in urban areas. As has been noted above, enforcing the Anti-litter By-Laws is relatively difficult. Since one of the driving forces of the Anti-Litterbugs Campaign is enforcement, the campaign devises strategies to make enforcement easy. The first strategy is to make the campaign as well known to people as possible. This is accomplished through various means, such as by displaying simple and easily understood straight forward anti-littering messages in banners and streamers, making announcements from moving vehicles, announcements at shopping complexes, road shows and exhibitions. If many people are already aware of such campaign, they have no more excuse for littering, and they cannot argue with the enforcement officers any more.

The second strategy is to invite participations from the community in nabbing the litterbugs, just like the *gotong royong*. However, this time the activity is not picking up rubbish but nabbing those who throw rubbish indiscriminately. The payoffs from this activity are the organisers gain immediate revenue from payment of fines. However, more important than that, the participants observe themselves how embarrassing it is to be nabbed and fined for littering. This serves to educate participants against littering themselves. Seeing the presence of so many participants, the litterbugs would not bother arguing, but rather pay the fines and walk off immediately. This certainly makes enforcement easy.

The third strategy is to make payment of fines easy. This can be done by enabling litterbugs to pay their fines on the spot, with receipts issued to them for every payments made. This saves them the hassle of having to go to the local authority office to pay the fines. To reduce objections or even possible resentments from members of the public, the amount of the fines is kept as low as US\$1.00 or US\$2.00. The objective of this campaign is to win the hearts of the public, not their money. People would readily pay their fines if the amount is small.

Litterbugs had been shown to be less resistant to enforcement after the above strategies have been implemented. An enforcement officer of the Kota Kinabalu City Hall once remarked, “It is so easy to enforce (the Anti-Litter By-laws) now. Instead of being outraged when apprehended for littering, the culprits just smile. They quickly pay their fines, and walk out in embarrassment.”

### 3.3. *It encourages public participation*

Apart from the public participation in voluntary community work in nabbing litterbugs as has been mentioned above, the Anti-Litterbugs Campaign once again invites public participation in reporting littering from vehicle to the local authority. Members of the public who witness such incident are encouraged to report the registration number of the vehicle involved to Kota Kinabalu City Hall. A study by Christensen & Clark (1983) suggested the importance of reporting to enhance success in reducing littering. They also highlighted the need to deal directly with the litterer. However, in the case of littering from vehicle it is difficult to precisely determine who the litterer really is, unless he or she is apprehended on the spot. Therefore, when the City Hall receives a report on such incident, the City Hall writes a letter to the owner of the vehicle, bringing to his or her attention the act committed either by the driver or passenger of the vehicle concerned, not necessarily the actual owner or such vehicle. Although it is not the intention of the City Hall to bring the culprit to court or fine him or her, this strategy is found to have some benefits. Firstly, the person who bothers to make such report raises his or her awareness about littering. Secondly, the owner of the vehicle who receives the letter from the City Hall is made aware that



there are people watching those who litter. The Anti-Litterbugs Campaign provides ample opportunity for members of the public to participate either in the *gotong royong* to nab litterbugs or merely reporting incidents of littering from vehicles as already mentioned of even to be appointed as ambassadors for the campaign. The Kota Kinabalu City Hall has appointed a number of school children to be ambassadors, whom the City Hall would bring along in its routine campaigning in and around the city.

### *3.4. Objective success indicator*

As indicator of success, local authorities conducting the Anti-Litterbugs Campaign are encouraged to weigh the amount of litters collected prior to and after implementing the campaign. The amount of rubbish collected daily by the Kota Kinabalu City Hall in some selected locations was weighed and recorded prior to and after the implementation of the campaign in 2008. The amount of rubbish was found to have reduced by about 50% by weight in a matter of weeks after the campaign was launched. This indicates the success of the campaign. The campaign can be implemented systematically by setting its targets, such as the percentage reduction of rubbish collected in particular areas, the number of schools declared as litter free schools, and public and private offices declared as litter free offices over a period of time after the launching of the campaign.

### *3.5. Intensive and widespread campaigning*

When the Kota Kinabalu City implemented the Anti-Litterbugs Campaign in 2008, it was meant to be on a large scale. The City Hall conducted the campaign on land, in the sea and on the air. Basically, the City Hall conducted the campaign on foot, by vehicles, by boats and by aeroplane. The last one is of course merely asking the airline stewards and stewardesses to assist in making announcements about the campaign as they are making their routine announcements when their aeroplane is about to make a landing at the Kota Kinabalu International Airport. Many government departments, such as the Information Department, Fire and Rescue Department, Police Department, Maritime Enforcement Agency, the Navy and many others took part in the campaign. Extensive media coverage was made to maximize public awareness of the campaign. The City Hall pleaded to the people to not just stop littering, but also to talk about the campaign wherever they are. The campaign uses catchphrases such as “Beware You Are Being Watched” to warn people that they are people watching them, and “Choose Life (Litter Free Event, Everywhere, Everyday, Everyone)” to remind them to make non-littering as a way of life.

## **4. Discussion**

It is important to note that the Anti-Litterbugs Campaign is not like any ordinary campaign. In totality, it is a comprehensive strategy to address the cleanliness problem that Malaysians from all walks of life are facing in their cities and towns on the daily basis. It focuses on prevention of litters, rather than throw-first-collect-later. It is participatory in nature, building its strength and success on people’s participation. The Anti-Litterbugs Campaign is by far different from the conventional cleanliness campaigns prevalently conducted by many local authorities in Malaysia. Table 2 below shows the comparison between the conventional cleanliness campaign and the Anti-Litterbugs Campaign.

Table 2. Comparison between the Cleanliness Campaign and Anti-Litterbugs Campaign.

Subject	Conventional Cleanliness Campaign	Anti-Litterbugs Campaign
Target of Campaign	Litter/Rubbish	Litterbugs
Activities	Cleaning Efficiently and Effectively	Behaviour Change and Prevention
Focus	Cleaning	Prevent Littering, Promote Cleanliness
Strategy	Throw-first-collect-later	Education, Enforcement, Infrastructure
Community Participation	Gotong Royong to Clean Area	Gotong royong to Nab Litterbugs, Report Littering from Vehicles, Anti-Litterbugs Ambassadors
Primary Components	Gotong Royong	At least 17 Components
Objective	Clean City (but difficult to realise)	Litter Free City

The Anti-Litterbugs Campaign, in reality, seeks to change various groups of people's perception on littering. Firstly, it changes the perceptions of the general public on littering. Before this, people always point their fingers on the local authority when they see rubbish. They would blame the authority for their apparent failure to keep the city clean. However, the emphasis on targeting the litterbugs under the Anti-Litterbugs Campaign makes people shift the blame now to the litterbugs. The second group of people whose perception is changed by the campaign is the litterbugs themselves. Before this, they were not the explicit targets of the efforts and campaigns of the authorities in their endeavour to maintain cleanliness in their areas of jurisdiction. The officials of the local authorities are the third group of people whose perceptions are changed by the Anti-Litterbugs Campaign. Before this, their preoccupation was to pick up rubbish thrown out by people indiscriminately. Now, under the Anti-Litterbugs Campaign, they focus their attention on stopping the littering.

Since the Anti-Litterbugs Campaign promotes internal awareness and behaviour change, a cultural shift to non-littering is not impossible. Enforcement would be facilitated and in time, becomes secondary. More people will not be throwing rubbish everywhere, even in places that do not formally prohibit littering such as in non urban areas or in places where enforcement personnel are not present. It is effective since it focuses on the root cause of the problem. The Anti-Litterbugs Campaign has been systematically designed to maintain urban cleanliness on a long-term basis in contrast to the one-off and the less effective conventional cleanliness campaign approach. It is not difficult to implement, many of the activities are the routine work of most local authorities. In addition, the Anti-Litterbugs Campaign has an added advantage, that is, it brings in immediate revenues to the local authorities in the form of fines. The success of the campaign has caught the attention of the Sabah Ministry of Local Government and Housing. A state wide Anti-Litterbugs Campaign was launched in 6 December 2010.

The search for a successful approach in reducing littering is important because an effective approach could serve as model for other behaviour-change especially in environmental and conservation related behaviour. Other urban issues such as the campaign for clean toilet, recycling and energy saving could draw invaluable lessons from the study of cleanliness and Anti-litterbugs Campaigns in Kota Kinabalu.

## 5. Conclusion

City dwellers not just in Malaysia, but in many Asian and African cities have this littering culture in general. This culture shall not stop or disappear on its own. Some forms of interventions from the relevant authorities are necessary to stop this wasteful culture. Somehow someone or some people have to make an effort to stop it. The Anti-Litterbugs Campaign model is a potentially viable strategy to do this. The



campaign focuses on behavioural change. This is what is required to address the issue, changing the behaviour of different groups of people, members of the public in general, the litterbugs and the officials of the local authorities alike. Its success indicates that it has a potential to better promote cleanliness in urban areas. If implemented fully and persistently, any local authorities in the world can benefit from this new approach as shown by the Anti-Litterbugs Campaign implementation by the Kota Kinabalu City Hall.

One of the limitations of this study is its limited focus to the Kota Kinabalu City Hall only. It is unclear whether similar findings can be applied to other urban areas in the country. Furthermore, the period of observation on the Anti-litterbugs Campaign is only less than a year. Although the Anti-Litterbugs Campaign appeared to be successful within a short period of time, its long-term sustainability needs to be further evaluated. Thus, future research may include studying the implementation of the campaign in other local authorities in Sabah now that the state government of Sabah has made a decision to implement similar campaign throughout Sabah. Re-evaluation of the campaign in Kota Kinabalu after a lapse of several years is also important to gauge its sustainability as well as identify barriers to sustain the campaign.

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