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Guide for Organising a Community Clean-up Campaign

Innocent Rangeti and Bloodless Dzwairo

Abstract

While it is the government's and municipality's mandate to ensure that its citizens stay in a clean and safe environment, it is of concern that waste management remains a big challenge in urban areas especially in developing countries. Increased economic development, rapid population growth and improvement of living standards are among the factors attributed to increased quantity and complexity of solid waste being generated. On the other hand, while people generate wastes, they continue to be looked at as passive recipients of municipality services. Ultimately, citizens fail to recognise their role in waste management and become unwilling to either pay for service delivery or participate in clean-up campaigns. Waste dumps are prime breeding sites for communicable disease vectors such as rodents, mosquitoes and houseflies, which can exacerbate the prevalence of water, food and waterborne diseases such as cholera and typhoid. This chapter thus describes the methodology of successfully conducting a community-led cleanup campaign. It is based on experience gained during implementation of an urban water, sanitation and hygiene (WASH) project. Ward level clean-up campaigns were organised and conducted by community members and local leaders. Besides clearing illegal dumpsites, the activity was also used to raise awareness on the consequence of waste dumping. The experience showed that organising a clean-up campaign only requires careful timeous planning. Overall, it was concluded that not only does the activity serve the practical purpose of cleaning, but it also creates a greater sense of unity and friendship among community members. Additionally, the power of beautification in a clean-up campaign would naturally motivate residents to believe that their problems could be solved, resulting in a shared responsibility for sustainable management of waste and commons at local level.

Keywords: clean-up campaign, solid waste manage, community participation, illegal waste dumping, waste dumps, community volunteers

1. Introduction

Solid waste is any material that is primarily not a liquid or gas and is unwanted and/or unvalued, discarded by its owner, and can be from domestic, commercial or industrial operations [1]. Globally, there are ongoing campaigns to promote sustainable use of the environment while considering the negative effects of waste in general as well as climate change, which have become evident in a number of regions [2–5]. In particular, the primary aim of sustainable solid waste management is to address concerns related to environmental pollution, public health, land use, resource management and socio-economic impacts associated with improper

disposal of waste. However, as urbanisation continues, the management of solid waste in particular, remains a major public health and environmental concern. Specifically in Zimbabwe's urban areas, more than 2.5 million tonnes of industrial and household waste is produced per annum [6]. The bulk of this waste has been noted to end up in open, illegal dump sites, urban streams and wetlands, resulting in blocked drainage systems, contaminated surface and groundwater, which causes several environmental, health and economical challenges.

Even though several studies have been conducted globally on waste management and the effects of pollution [7–11] this unfortunately, has not translated into an improvement in solid waste management especially in developing countries such as Zimbabwe. Various factors, for example, rapid urbanisation, population and economic growth as well as elevated human standard way of living have also been cited as key determinants enhancing waste generation in developing countries [12]. Zimbabwe, despite having some well crafted legislations on waste management (Environmental Management Act (EMA), Chapter 20: 27, Urban Councils Act, Chapter 29:15), has not been spared from solid waste management challenges. These include low collection coverage, irregular collection services, crude open dumping and burning. Section 70 (1) of the country's EMA Act stipulates that 'No person shall discharge or dispose any waste in a manner that causes environmental pollution or ill health to any person.' Additionally, Section 83 (1) of the same Act prohibits littering by stating that: No person shall discard, dump or leave any litter on any land or water surface, street, road or site in or at any place except in a container provided for that purpose or at a place which has been specially designated, indicated, provided or set apart for such purpose [13].

Solid Waste management entails the collection, transportation and disposal services. While it is a mandate of governments and local authorities to ensure that their citizens stay in clean and safe environments, it is of concern that solid waste management still remains a big challenge in urban areas, especially of developing countries. Various studies have highlighted that active community participation is essential for improved service delivery including solid waste management [14–16]. Community participation can comprise varying degrees of involvement of the local community ranging from contribution of cash, labour, consultation, adaptation of behaviour, involvement in administration, management and decision-making. Countries continue to be expected to progress in improved waste management by 2020; through the sharing of knowledge, experience and best practices [17]. The benefits of this integrated sustainable solid waste management approach includes natural resource conservation, reduction of the amount of waste to be recycled or transported for land filling, decrease in air pollution and greenhouse production, reduction in production of toxic waste and ultimately reduction in cost related to the collection and disposal of waste [18]. Countries thus need to take all possible measures to prevent unsound management or illegal dumping of waste particularly hazardous waste especially given the negative effects of waste.

2. Effects of illegal waste dumping

Poorly managed wastes have several effects and impact on human and animal health, economic development and social impact [19–21]. Waste dumps are prime breeding sites for communicable disease vectors such as rodents, mosquitoes and houseflies [22]. These vectors tend to exacerbate the prevalence of food, water and waterborne diseases such as cholera, typhoid and malaria, among other. For example, Zimbabwe experienced a huge cholera outbreak between from 2008 to 2009, recording 98,952 cases and cases and a morbidity of 4288. Key drivers cited for this huge outbreak was inadequate supply of good quality water as well as poor

solid waste management [23]. On the other hand, waste incineration, which had and continue as common practise in urban areas, releases fumes that naturally cause acute respiratory infections as well as odours that make the environment uninhabitable. It is reported that less than 30% of urban waste in developing countries is collected and disposed appropriately.

Leachate from dumpsite pollutes underground water, which has emerged as an alternative water source in most urban areas such as Harare in Zimbabwe, as the city continues to experience serious municipal water supply challenges. Besides the public health concern, illegal waste dumps tend to reduce the aesthetic status of a neighbourhood, thus reducing the economic value of properties within the vicinity [24]. Solid waste tends to clog drains thus causing flooding. Additionally, solid waste may also harm animals that consume it unknowingly, as well as affect economic development through diminished environmental value and tourism, which are generally viewed as externalities as they are negative costs [25], which need to be incorporated into sustainable development models.

The proliferation of rubbish is attributed to many factors, key among them being, population increase, rapid urban growth, lack of environmental education, inadequate bins and irregularities in waste collection by the responsible authority [12]. While efforts are being made by some local authorities to secure modern state of art waste management equipment such as compactors, this development has not yielded the desired results as communities still continue to dump waste. Insufficient technical services, lack of spare parts and low maintenance budgets are among the factors attributed to the poor performance of advanced waste management technologies currently being adopted by some local authorities in low developed countries. When such sophisticated equipment breaks down the entire waste management system fails. On the other hand, generally people litter because for lack of ownership for the public facilities and areas, because they believe someone else will do it, eg the municipality, or that they find the litter tolerable or even that they would have given up since the litterer had already accumulated anyway. Hence the challenge where common resources are subject to neglect and the widely used phrase “tragedy of the commons” [26–29].

Rangeti, Tendere [16] highlighted that the failure of the top-down approaches towards waste management especially in developing countries, cannot only been attributed to technical and financial challenges, but also to the low involvement of communities in service delivery. Whereas every person generates waste, they continue to be looked at as passive recipients of municipality services. Ultimately, citizens fail to recognise their role in waste management and become unwilling to either pay for service delivery or participate in clean-up campaigns. Dillon and Steifel [30] further elaborated that people’s engagement involves the deliberate and systematic mobilisation of local communities around issues and problems of common concern. Even LeBan, Perry [31] attested to the understanding that people gain information, skills, and experience in community involvement that helps them take control of their own lives and challenge social systems. Thus the success of any programme of action depends on the response by citizens, particularly the targeted beneficiaries [32, 33]. With that background, this paper is based on experiences by the author during implementation of a water, sanitation and hygiene project in Bindura, Zimbabwe, where the community was engaged to voluntarily clean up there neighbourhoods. The paper provides lessons on how to organise an effective community ward based clean-up campaign [34].

3. Study area

Bindura (**Figure 1**) is the administrative capital of Mashonaland Central Province, Zimbabwe. It is located in the Mazowe Valley, about 88 km north-east

of Harare. It is made up of 12 wards. According to the 2012 census, Bindura had a population of has 46,275.

During implementation of a water, sanitation and hygiene project, the project team successfully mobilised communities to conduct 27 ward based clean-up campaigns over a period of eight months (February – September 2015). This was done following some ward-based sensitisation on the importance of improved waste management and hygiene issues. The Citizen Supporting Service Delivery (CSSD) concept was used to sensitise the community on the need for participation in waste management efforts. In addition, five waste management groups under-taking various waste recoveries and recycling projects as shown in **Figure 2**, were established.

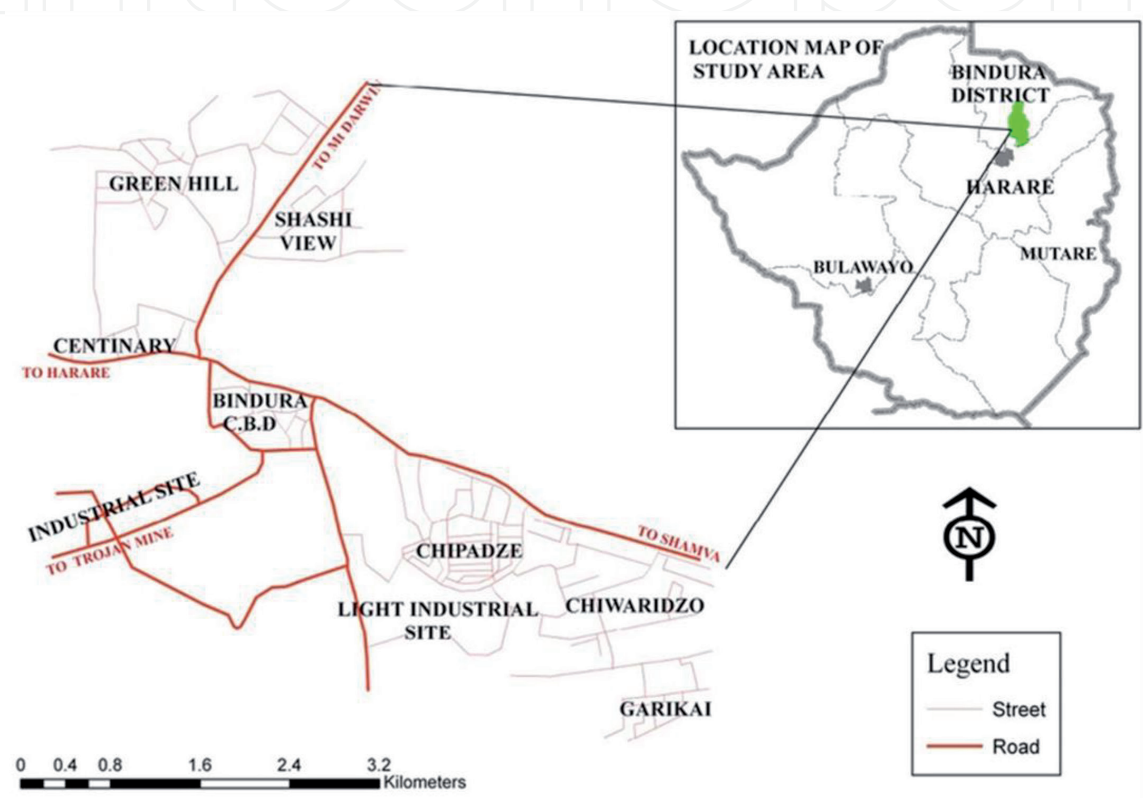


Figure 1.
Bindura town map.



Figure 2.
Illegal waste dumping at Chipadze shopping Centre (left) and waste recycling through making of bins (right).

4. Methodology

While considering that a collaborative effort to clean the local environment can send a clear message to community members on the need for them to be good stewards of their environment, sensitisation meetings were conducted in the 12 residential wards of the study area to educate communities on the consequences of waste dumping. Communities were encouraged to take action and be responsible to the environment. The result was a series of community-led ward based clean-ups to clear illegal dumpsites at street corners, shopping centres and open spaces. The clean-ups were initiated and coordinated at ward level by community health facilitators and councillors who were local leaders at ward level. **Figure 3** summaries the methodology developed from the experience.

4.1 STAGE 1: Planning

4.1.1 Organising a committee and supervisors

Organising a working committee is one of the crucial initial steps when planning to conduct a clean-up campaign. The committee should be led by a coordinator who oversees the activity and is the primary contact person during the event. Committee size depends on various determinants such as tasks to be performed and number of volunteers expected to participate. In general, committee members should be energetic, responsible and able to enforce the schedule while motivating participants to complete their assigned tasks. Choosing a community member with an interest in hygiene and environmental protection issues such as community health facilitator makes sense given their dedication. However, it is critical that each member is comfortable with his/her tasks.

Among the responsibilities of a committee is to (1) set the agenda, (2) secure tools and ensuring their return, (3) mobilise volunteers and (4) solicit contributions and donations. Where a large number of volunteers are expected, consider forming some sub groups and selecting group coordinators. A group coordinator should be a good communicator and able to handle arising situations. To avoid confusion, the committee and coordinators should visit the proposed site for action for

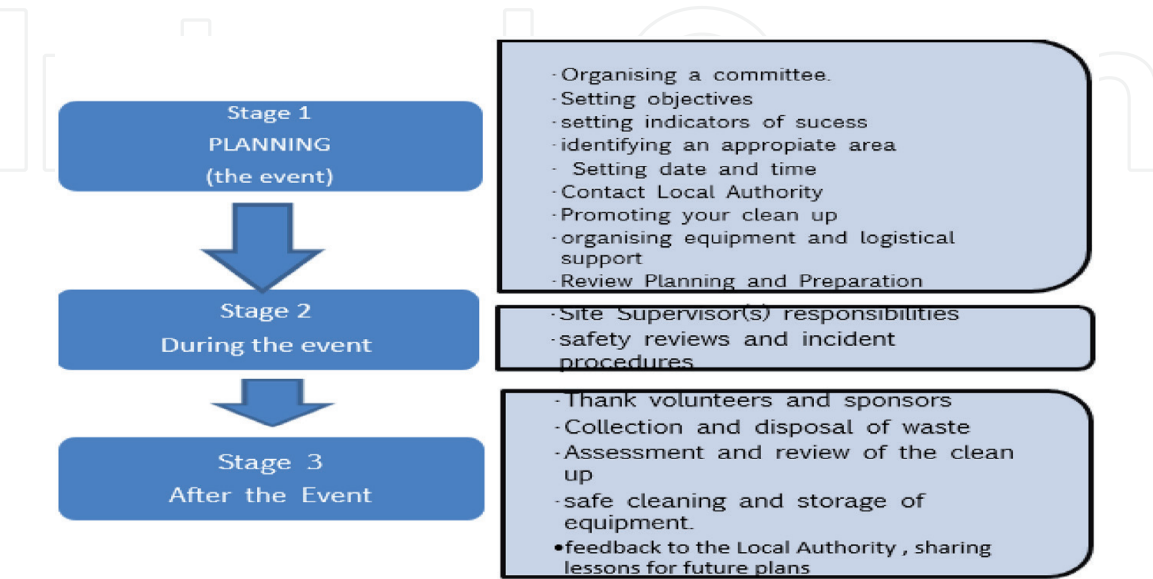


Figure 3.
Methodology for organising a clean-up.

familiarisation prior to the clean-up day. On the day of the clean-up, group coordinators must arrive earlier than the rest of the community, at the event meeting point and when possible, identifiable by reflectors.

4.1.2 Setting objectives of a clean-up campaign

To ensure that participants work towards the same outcome, the committee needs to set specific goals and define the scope of the campaign. The scope should clearly detail what is to be done, when, how and by whom. The objectives must be clear, achievable and measurable, with common goals for a clean-up campaign being to remove waste, environmental protection awareness and fundraising.

4.1.3 Setting indicators for success

It is important for the committee to clearly define how success will be evaluated. The working committee will define and list measurable indicators of success. Examples of such indicators are; (1) number and types of participants (e.g., community members), (2) amount/weight of refuse collected (3) approximate area cleaned, (4) time spent and (5) the impact of clean-up activity on the targeted area. It is also important to remember collecting that information on the day of activity. Taking photos before and after the event will assist in measuring the impact of the event.

4.1.4 Setting up the campaign date

Advance planning is crucial for the smooth conducting of a clean-up campaign. Because good planning takes time, it is reasonable to set a date about one or two months in advance. When deciding the date, consider several factors such as; weather, availability of volunteers and availability of waste haulage truck. In most cases, Saturdays are ideal for a community clean-up since most people do not go to work. Beside the availability of participants, 16 clean-up campaigns conducted in Bindura were conducted on Saturdays given the availability of waste haulage trucks from the municipality. Considering a day that coincides with the municipality refuse collection routine in that given area also makes sense. It is reasonable to avoid a day that conflicts with a local event such as a major sporting game, church event or political rally as people will end up having to choose to attend to the more prioritised events. Clean-up campaigns are better attended in the morning especially in warmer weather.

4.1.5 Identifying a place

When determining a place to conduct the campaign, consider various factors such as; (1) the amount of waste, (2) safety of participants (3) location and (4) accessibility. For example, choosing an area that is meaningful or in close proximity to where the volunteers live, work, play or worship makes sense given that people are normally motivated to clean their own area. The proposed area should be easily accessed by a waste hauler and emergency services. It is worthwhile considering an area that needs attention rather than one that is already clean and well maintained. Where the goal of the clean-up campaign is to raise awareness, public places such as the recreational park and shopping centres will have a huge impact. In some instances, the local authority may recommend an area that needs to be cleaned. Visiting the proposed area during the planning stage would assist in refining the project goals and logistical arrangements. For example, where a school

health club or youth are volunteers, consider an area that is safe. Creating a site map showing 'hotspots', dumpsite would assist in evaluating the results. Once the area has been chosen, decide on a convenient meeting point for participants.

4.1.6 Coordinate the activity with the local authority

Since a clean-up campaign significantly contributes towards the delivery of the local authority's environmental sustainability commitment, it is important to register your event with them. Beside, local authorities can provide support logistically and financially, and thus it is always worth discussing the proposal with relevant personnel. Assistance may be in form of; (1) recommendations for a clean-up area, (2) permission to access public area, (3) promotion of the event, (4) free waste haulage service and (5) free disposal of collected waste at designated dumpsite. Once permission has been granted and date confirmed by the local authority, the committee can start mobilising volunteers.

4.1.7 Mobilisation of volunteers

While a clean-up campaign can be conducted using any population size, finding volunteers can be the hardest part of this activity. However, it is still the key for conducting a successful event. One of the best practises of a community based clean-up is the participation by all ages despite cultural background and abilities. Involving children would assist in efforts to foster them into adult that are responsible to the environment and who are able to work harmoniously with others (**Figure 4**). It is important to quantitatively determine the number of volunteers needed and be prepared to accommodate others who might hear about the activity and also want to participate.

Depending on the targeted volunteers, various methods can be used to invite volunteers. Newsletters, notice boards, email, flyers etc. are effective in low density community. Community organisations such churches, community health clubs, school health clubs etc., are also effective ways of inviting volunteers. In Bindura, community health clubs and the local leaders played an important role in mobilising the volunteers. Inviting representatives of relevant stakeholders such government



Figure 4.
Community briefing and organising before the start of a clean-up.

ministries, religious and traditional bodies would be influential in the program and in mobilising volunteers.

Volunteers should be reminded on relevant information such as: location, date and time of the clean-up and clothing (e.g. enclosed footwear, gloves, hat, etc.), a week or two before the event.

4.1.8 Soliciting funding

Where possible, consider mobilising donations in the form of refreshments or financial assistance for the event. Local businesses are normally willing to sponsor clean-ups to demonstrate their commitment to the protection of the environment. In some cases, the organiser might encourage the business community to advertise their business by printing t-shirts for volunteers, which also bears an environmental protection message. In Bindura, the councillors which are local leaders were more involved in soliciting for donations.

4.1.9 Promotion and media coverage

It is important for the community to know what the facilitators are doing. Publicity and promotion of an event depend on various factors such as budget and time. When possible, consider inviting the local media such as local newspaper to ensure that inspiring success stories are published. Environmental protection organisations also normally have interest in such event and would be delighted to promote. In Bindura, a government parastatal, the Environmental Management Agency (EMA) supported the clean-ups with awareness raising vehicles as shown in **Figure 5**. It is important to recognise that publicity includes promoting the clean-up before, sharing the results and thanking volunteers and sponsors afterwards.

4.1.10 Organising equipment and logistical support

The number and type of tools required vary depending on the area to be cleaned, number of participants and type of waste. Ensuring that there are enough tools for



Figure 5.
Awareness raising during community-led clean-up campaign using a vehicle provided by the environmental management agency in ward 7.

the clean-up is critical to a successful event. It is important to also ensure that all equipment is checked during and after the event. In some cases, volunteers might be required to bring their own equipment for the event. Prior arrangement should be made with the local authority department responsible for solid waste management to determine if a waste haulage truck can be arranged for this day. Where the municipality is not able to collect the garbage, consider alternatives such as a private waste haulage company.

4.2 STAGE 2: Day of the event

Group coordinators should arrive first and register all participants. Thereafter, the project coordinator should (**Figure 4**);

1. thank volunteers for coming
2. highlight the goals and importance of the campaign
3. highlight the roles and responsibility of the participant
4. review of safety and emergency procedures
5. schedule for the event
6. site plan review, and
7. distribution of the equipment.

Group coordinators should be reminded of their roles in assisting their respective working groups. They should encourage their teams to accomplish their assigned tasks and coordinate the removal of the collected litter.

4.2.1 Safety review and compliance

Ensure that all participants have gloves and dust mask. Protective gloves prevent cuts associated with the handling of sharp objects with bare hands. Be clear with your volunteers about how to handle hazardous waste such as pesticide containers, cleaning chemicals containers and sharp objects such broken glass. Closed feet shoes are safer than sandals or flip-flops. Where children will be participating, plan for adequate adult supervision (**Figure 6**).

4.3 STAGE 3: After the clean-up

After, the clean-up, the project coordinator should thank everyone who volunteered their time and effort. A follow up thank you letters should be written to all stakeholders including sponsors who would have assisted. Remind participants to wash their hands especially when refreshments are to be served. Where a hand-washing facility is not available, arrangements must be in place for an alternative facility such as a portable water dispenser and soap.

4.3.1 Disposing of garbage

One of the most important aspects, when organising a community clean-up, is organising for removal of trash. Waste should be removed as soon as possible after



Figure 6.
Chipadze primary school health Club cleaning up Chipadze shopping Centre.



Figure 7.
Community members clearing a dumpsite during a clean-up campaign.

the event to prevent the creation of unhygienic conditions and to avoid it becoming an eyesore and an environmental externality (**Figure 7**). It is the responsibility of the project coordinator to make arrangements with the local authority for the collection of garbage collected. Where the local authority is not able to provide haulage service, prior arrangements should be done for alternative methods such as private companies.

4.3.2 Assessment of the results

It is important to assess the event as soon as possible after it occurs. Success is measured using the indicator listed during the planning stage. A report detailing the number of volunteers (aggregated by sex and age group), hours worked, area covered, illegal dumpsite cleared, weight of waste removed among other indicators should be produced. Including lesson learnt and suggestions should help in improving the next clean-up. It should be remembered to share the results and photographs, where possible, with all stakeholders.

5. Lessons Learnt

1. Community participation is indispensable to the success of solid waste management at the local level.
2. Clean-up campaigns offer the residents an opportunity to demonstrate their willingness to do community development work and show that they are good citizens.
3. Community participation is key to the successful implementation of any initiative towards solid waste management in urban areas.
4. A clean-up campaign is an effective platform to show communities that waste management is important.
5. If educated, a community has the power to police each other on littering and waste dumping
6. Urban communities, are more “reactive” than “proactive”.
7. The demand for improved solid waste management needs to be facilitated by community groups such as health clubs.
8. Residents are willing to look after their environment, if educated

6. Conclusion

Lack of awareness and low participation of communities tend to exacerbate solid waste management challenges that are being experienced by the urban population especially the poor communities. People's attitudes towards waste and understanding of the consequences of poor waste management play a significant role in encouraging their participation in improved solid waste management. By participating in clean-ups, citizens can contribute in creating immediate and long-term solutions for their neighbourhoods. Clean-ups can serve as catalysts for permanent changes in behaviour and attitude as well as encouraging communities to adopt good practices such as reuse and recycling, which have a profound effect on waste management in a community. The experience also showed that organising a clean-up campaign requires careful timeous planning. Overall, it was concluded that not only did the activity serve the practical purpose of cleaning up, but it also created a greater sense of unity and friendship among community members. A clean-up provides community members an opportunity to bond with one another. It also assists to cross or dissolve racial, cultural, ethnic and other established neighbourhood divides. Further, the power of beautification in a clean-up campaign would naturally motivate residents to believe that their problems could be solved. This would then result in a shared responsibility for sustainable management of waste and commons at local level. This activity assisted the community to measure (hypothetical) how much control they had over their lives if they worked together for a common goal. Therefore, communities need to consider clean-up campaigns as ongoing activities that they could turn into neighbourhood tradition.

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