

A mismatch in expectations about township recycling

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Abstract:

This paper evaluates the Hangberg Zero Waste recycle pilot project and investigates why the community lost interest and motivation to recycle during the project. The aim of the project was to reduce the amounts of waste, raise environmental awareness and create job possibilities. The method used was key informant interviews with some of the people involved in the project. We found that there was a mismatch in expectations due to communication issues and lack of clarification and incentives. The conclusion was that, to face and avoid those challenges, there should be more focus on using information as a motivator, improvement in ease of access to recycling facilities, and to involve the community in the design process instead of using a top down approach.



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Introduction

As population and consumption increases, the world ends up producing more waste, which is a challenge, especially in developing countries where resources are limited (Ahmed & Ali, 2003). Waste attracts disease carriers like rats, flies, and mosquitos, therefore, solid waste management is necessary for improvements in sanitation that is directly linked to health (Gonzenbach and Coad, 2007). Recycling is a way to manage and benefit from the increasing waste amounts, of which there is potential for in many developing countries (Wilson et al., 2006; Gonzenbach and Coad, 2007). More than 20 years after Apartheid ended, many South African cities are still labeled by residential segregation and there is inequality in access to public services (Smith and Hanson, 2003; Fieuw, 2011). In the city area where the infrastructure is well developed, waste is collected from wheellie bins on the curbside of each household, while in many informal settlements, each household has to walk sometimes great distances to the nearest waste container, which is one of the reasons why waste can be seen in the streets of some informal settlements (Gonzenbach and Coad, 2007). The streets are also periodically cleaned in cities, which is not happening as often in many townships. However, even though clean streets are important, some people in low-income areas struggle to fulfill essential needs such as, food, water, access to education and work. For this reason, a project which combines recycling with other elements of sustainability and awareness such as the possibility of job creation and improvements in the quality of life, is a promising concept.

The Hangberg Zero Waste project was a recycling pilot project in the informal settlement, Hangberg, in Hout Bay, which was facilitated by the partnership between Thrive and a local social entrepreneur that was appointed as the Site supervisor for the project. Thrive is an NGO in the Hout Bay area, and their objectives are to raise environmental awareness and encourage sustainable living. The local Site-supervisor lives in Hangberg, and has for many years been involved in a recycling program at the weekly Hout Bay Market. The pilot project lasted for three months from January to April 2017, and the philosophy of this project was to engage the community in recycling, create new job possibilities and reduce the waste amounts. This aim was achieved, but motivation and participation levels fell during the project.

The framework of the project

The project was funded by the City of Cape Town through the transfer of funds to the Non-Profit Corporation, Hout Bay Partnership. The Hout Bay Partnership approached Thrive due to their previous successes in other recycling programs and Thrive employed a local site Supervisor. Recruitment of 10 “Block leaders” known as ‘Eco heroes’ were made by the site Supervisor for committing to educate and motivate households to sort their waste (Everett & Pierce, 1991). Initially each Eco hero was assigned 14 households. Figure 1 shows a stakeholder diagram explaining the structure of the project.

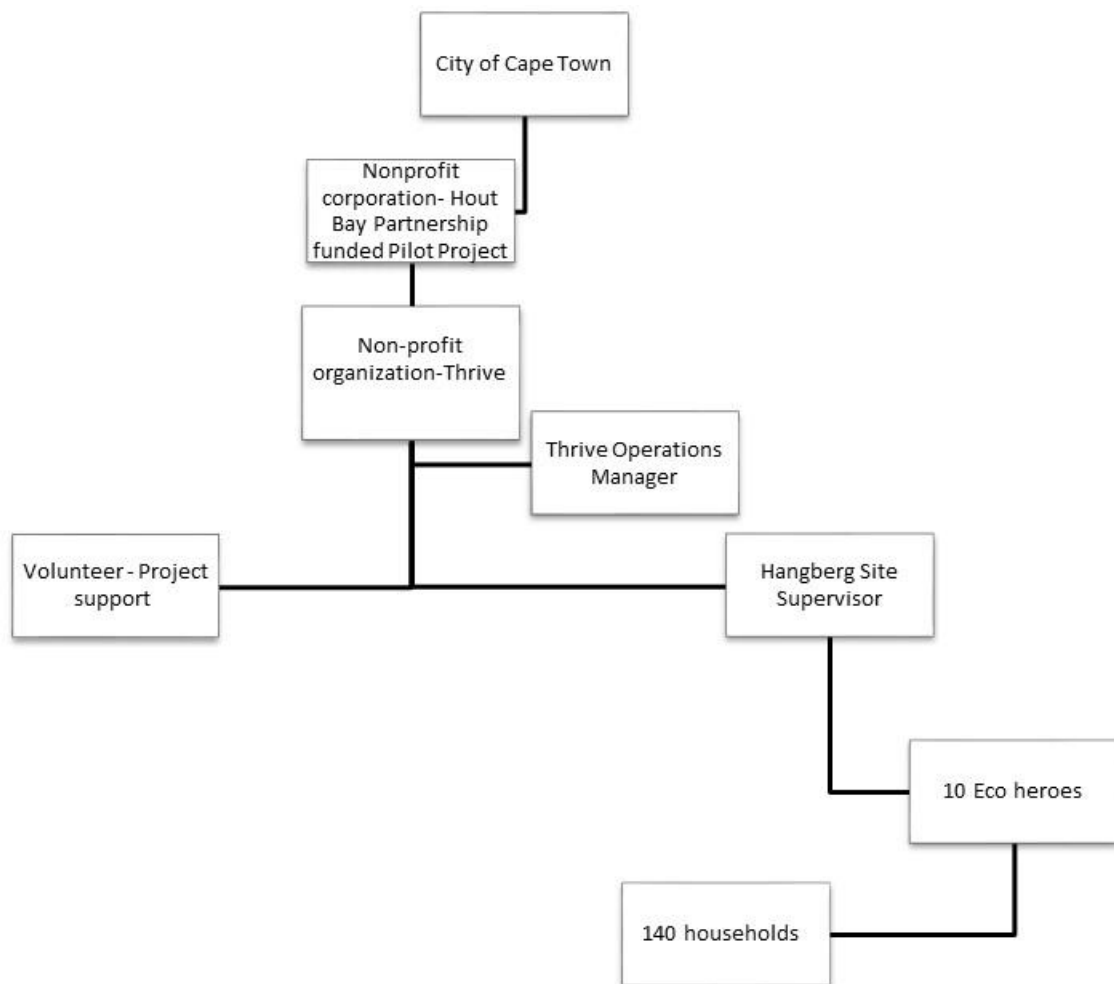


Figure 1 - Stakeholder map

The recycling process

There was one workshop held between Thrive, the Eco heroes and the participating households before the project began. In addition to the workshop, the households received information in the form of pamphlets showing the recycling procedures and how to sort waste. They were also provided with two 5 liter tubs for their compostable food waste and a continuing supply of plastic bags for their recyclables throughout the duration of the project. There were six sorting stations established in the small residential area, with posters indicating where the recyclable items should go. Besides the small sorting stations, there is a main storage station where the Eco heroes bring the sorted recyclables. The recycling process from households to recycling contractors is shown in figure 2.

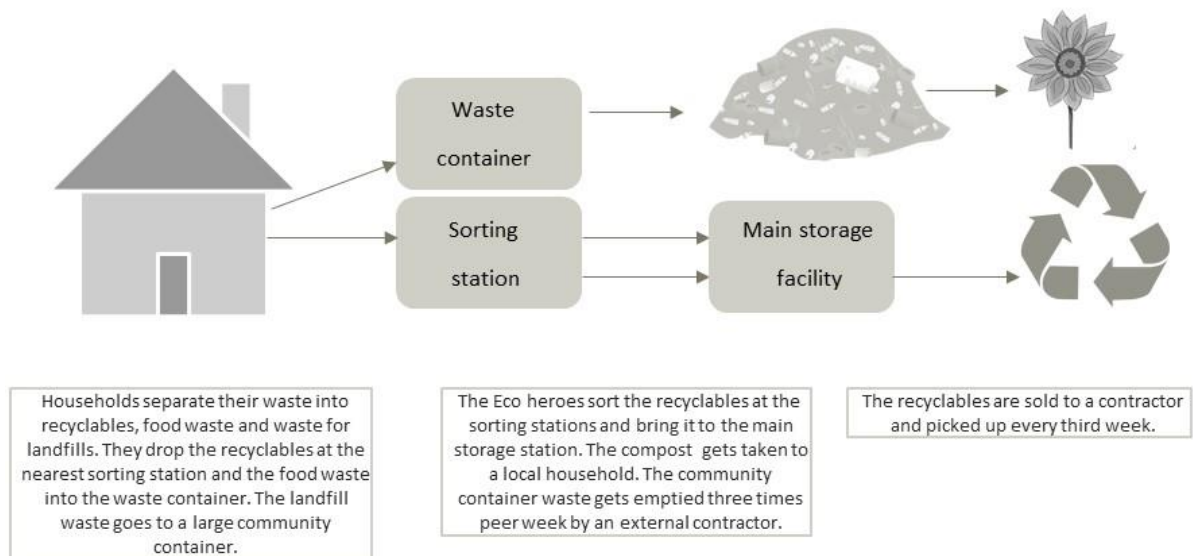


Figure 2 - Waste/recycling process flow

Methodology and data collection

The method used to do the evaluation was based on qualitative key informant interviews with the relevant stakeholders of this project. We talked with both the facilitators of the project (Thrive and the local Site supervisor) and some of the locals involved (households and eco heroes). We visited Hout Bay and Hangberg on five occasions during March and April, both while the project was still running and after it ended.

On the first two visits, we met the Thrive Operations manager who served as supervisor of the project, and a Thrive Project support volunteer who was responsible for budgeting and administration. On these visits, we were introduced to and discussed the process of the project, training, and implementation, and some of the challenges they have faced.

On the last three visits, we went to Hangberg where the Supervisor gave us a tour around the area where the participating households live, and showed us the main storage area and a few of the smaller sorting stations. She arranged meetings where we met members of the participating households as well as the Eco heroes. On our first visit to Hangberg we mostly got positive feedback from the households and Eco heroes at the interviews. However, to make a constructive, objective evaluation, it is necessary to hear different opinions from a representative sample. Therefore, on our last two visits we met with both people who participated and some who stopped participating to hear about different experiences with the project, and reasons for dropping out. Table 1 lists the interviews conducted.

Table 1 - Key Informant Interviews conducted

Group	Date of interviews	Number of interviews per group
NGO	15 and 22 March 2017 11 April 2017	3
Site Supervisor	11 and 27 April 2017	2
Volunteer	18 April 2017	1
Eco heroes	11, 18 and 27 April 2017	6
Households	11, 18 and 27 April 2017	7

We conducted interviews inside the informant's homes or outside on the street. The interviews were conducted in either English or Afrikaans as informal conversations. Our questions dealt with experiences with the recycling project, such as if they felt that they got the necessary information, if it was easy to sort the waste and whether they could see the benefits from recycling. Most of the interviews were recorded, and we also took written notes. Our interviews were a mix between individual and group interviews. We had a lot of rejections from households who stopped participating and therefore our non-participating households amounted to three.

Results

Hangberg was designated a 'coloured' area in 1950 under Apartheid with the 'Group Areas Act', and people were moved here in the subsequent years (Fieuw, 2011). In these post-apartheid days, Hangberg continues to be a low-income coloured area, with a high level of unemployment and crime incidences (CoCT, 2013; Fieuw, 2011). The accommodation in the area is a mix of blocks with apartments, shacks, and small houses.

Site Supervisor

The site supervisor initially used the idea of starting a recycling cooperative business as an incentive to motivate the Eco heroes and the community to recycle. She believes that the project could grow to a successful business if the community did a greater effort. She told us that the intention was to get 200 households to participate in the project, however, they only managed to get 140 household to participate. This amount decreased after the first 6 weeks to about 100 households. She said that the reason for the decrease in household participants was because the Eco heroes and herself received a stipend but the households, did not have any monetary incentives for doing the extra effort it took to sort their waste.

The households

Most households have heard of the concept of recycling before, and the overall opinion about recycling is positive. Households are generally happy about having cleaner streets. Most households stated, that it does not take a lot of time to sort the waste and drop it at the sorting station. One woman said, that she does not have time to drop her recyclables off at the sorting station, and that the Eco heroes should collect it from her house like they did in the beginning. She added, that the least they can do for receiving the stipend is to collect it at her house. In addition to these comments, other households also explained their misunderstanding towards the role of the Eco

heroes such as having expectations about the Eco heroes to collect their sorted waste at their doorsteps. The confusion is due to different reasons: some households said that they were told by the Eco heroes, that their bags of recycled waste would be collected and some of the Eco heroes did collect the bags from the households while others did not. Some households stated that they did not get any education about recycling, and only received information pamphlets and equipment for compostable waste and recyclables, while other households maintained that they did get education from the Eco heroes in the form of explanations and door to door discussions. One woman from a household said that she does not want to work for the Site Supervisor, and she insisted on doing recycling herself. She confirmed the supervisor's concern of money being a factor that influences the decrease in household participations, by saying that it is unfair that other people earn money from households doing an extra effort by sorting the waste, when the households get nothing. However, the opinion from the Supervisor was that this lady has a personal issue and does not like her, and that is why she does not want to participate.

The Eco heroes

We conducted interviews with six out of the ten Eco heroes (60%). Some Eco heroes were chosen while others volunteered; they were selected based on having prior experience in recycling as well as being acquainted with the Supervisor. The Eco heroes and the local Site Supervisor signed contracts with Thrive and received monthly stipends for their efforts. Due to the poverty and unemployment, the idea of earning money from recycling became a factor in motivating them to get involved (CoCT, 2013). There were four meetings held between all the Eco heroes and Thrive, to prepare the Eco heroes for their tasks. All the Eco heroes confirmed that they worked the 10 hours per week, as stated in their contracts, but they worked at different times which was due to other job obligations, weather conditions and whether the households were at home. Most Eco heroes in general said that they did not get much training, but had weekly meetings during the first two months and a few meetings during the last month. One Eco hero said that she observed what the other heroes were doing and copied their actions. Some of the Eco heroes confirmed the statements of confusion with regards to the collection process made by households, by saying that they do or at least for a period did collect the sorted waste from the households. Some Eco heroes said that households accused them of not doing their tasks properly, because they are not collecting the recycling at the doorstep anymore and because the gutters and streets are not clean, even though it is not in their job description. This expectation of cleaning streets and gutters could be one of the reasons that led to a decrease in household participation. Another reason as cited by an Eco hero is that there were not enough workshops or information for the community. She thinks that if there were more workshops then people would be more committed. With regards to paperwork, none of the eco heroes filled out any of the register forms about working hours or quantity of recycling, as their contracts required. A reason for not filling out the forms, was that they did not need to hand them in, and neither Thrive nor the local Supervisor followed up on these forms. Since no one registered working hours or the individual quantity of sorted recycles, this could lead to free-riding and principal-agent problems.

When having individual interviews, some Eco heroes claimed that others were lazy (which ties in with the free rider problem), but as soon as we confronted the "lazy" Eco hero together with the Eco hero making the claim, then their attitudes uniformly changed to agreeing on everything being fine. In addition to the change in behavior in the different social context, we also found conflicting statements between what was told to us and what was told to the supervisor. This could question the reliability of the rest of the statements made by those individuals. For example, in the interviews, four of the Eco heroes said, that they would continue doing the Eco hero-tasks even without the stipend, but according to the Site Supervisor only two of them continued to participate. The general tendency of the Eco heroes was that they were very positive about the project, but it seems like they had different views about their responsibilities, even though they signed a contract stating the description of their tasks.

The Eco heroes were supposed to explain the recycling process to the households, but because it was not properly clarified upfront due to conflicting information given by the Eco heroes, it became a problem.

Discussion

Based on our results, it seems like there are different barriers and challenges related to the recycling project, which should be considered for continuation of this or similar projects. We have summarised them into 4 main categories:

Sorting storage capacity and access to sorting stations

The NGO and the site supervisor pointed out, that the main storage facility does not have enough capacity for the recyclables. The facility is often full, and because of theft, no recyclables can be left outside the station. The Eco heroes cannot drop the sorted recyclables here, and therefore must wait for the storage to be emptied before they can sort more recycled waste. Some households complained about the distance to the nearest sorting station being too long. We estimated that households had to put in minimal effort to recycle, because none of the households had to walk more than 50 meters to the nearest station, which means, that they had easy access to recycling facilities. According to Folz (1991), and Derksen and Gartrell (1993) the easier the access to a recycling program, the higher is the level of recycling. Therefore, there should be additional sorting areas situated at points where people have to pass on their way to work and towards the schools.

Contracts and penalties

The Eco heroes and the Site Supervisor had contracts, but as stated earlier, it does not seem like anyone cared about or followed the contracts. Even though they broke the contract, or worked less hours, they received the same stipend for their effort. Coad (2007) points out the importance of contracting, but he also says, that contracts can be a cultural thing, and that people feel different levels of commitment to a contract. The Eco hero contracts stipulated different tasks which required a lot of paperwork such as keeping a register of hours worked and quantification of the collected recyclables, which they might not be used to or familiar with. The fact that they did not complete the paperwork, shows a difference between the expectations of the NGO and the Eco heroes, because the NGO expects the Eco heroes to commit to their contract, while the Eco heroes do not take this commitment serious. A way to motivate the Eco heroes to do the tasks described in the contracts, could be by using monetary penalties and reduce their stipends (Iyer & Kashyap, 2007). However, the barrier here, is the effective monitoring of these people which in turn is related to the supervisor's management skills as well as the contract being too vague regarding the exact work hours per day, which allows people to come and go as they please. To avoid those issues, the contracts should be made and agreed on together with the community to avoid misunderstandings and matching their expectations.

The Supervisor

The Site Supervisor has ambitious about the project growing into a big business, which she has been using as a motivator. This might have been one of the driving factors for recruiting the Eco heroes and motivating the households, but it also seems like it has created disappointment when the expectations of monetary wealth from a big business were not met. The Supervisor's role was to manage the process, guide the Eco heroes, and do a lot of practical's related to the project, but it seems like it would have been more efficient if she monitored the Eco heroes by ensuring that the tasks in the contracts get done, and using penalties where they did not comply. Another challenge related to the supervisor is her social ties. According to Everett and Pierce (1991), the social networks found between the block will have an effect on the recycling behaviour. So, if some people do not like her, or the block leaders that she chose, then they might be less willing to recycle.

Communication and expectations

One of the biggest challenges is, that it seems like there is a lot of misunderstanding with regards to the recycling process itself, as well as the Eco hero's tasks. According to the interviewed groups, it seems like people have different views of who is responsible for what. Some of the conditions for a successful partnership is *"A realistic commonly accepted vision... that is based in the area's strengths and weaknesses as well as on a common understanding of potential for the area"* (Ahmed & Ali, 2004. 472). It seems like the project was mainly framed by the NGO and the Supervisor, in a top-down approach instead of involving the community. This could be a reason some of the Eco heroes did not explain the recycling process properly or have an understanding about their responsibilities even though they attended the meetings, workshop and read the contract. Some of the Eco heroes lost their motivation or did not feel morally commitment to the project, which could be due to the incentive of making money instead of environmental concern as well as the lack of consequences when breaking the contract.

Derksen and Gartrell (1993) found that the use of local 'block leaders' had a positive effect in motivating the community, but if information to households are not clarified like it is supposed to, it can cause people to feel alienated or detached to the project. Some of the households may also have experienced feelings of being exploited in this project, when they saw the supervisor and the Eco heroes getting money out of it, while the did not get any monetary beneficitation for their efforts.

To face the challenges regarding mismatch in expectation and keeping these people committed through the long run we suggest using information as an incentive, follow up on contracts and in general put a greater effort into ensuring that expectations are aligned. When it comes to behaviour and to motivational factors, incentives are often used. However, according to Iyer and Kashyap (2007), incentives can be good as motivators to be used in the short run, but to keep people motivated throughout the long run, the use of information in the form of regular workshops or weekly notifications has proven to be more effective. Therefore, we recommend that there should be more workshops between households, Eco heroes and the facilitators, not only before the project but also during the project to assure clarification upfront. In addition to the current information provided on pamphlets to households, these workshops should also contain information with regards to the responsibilities of Eco heroes, the benefits of recycling, what happens with the materials, environmental and health related benefits to be gained from recycling and description of what is expected from the households.

Conclusion

The Hangberg Zero waste project showed, that it is possible to motivate the residents to recycle and reduce the amount of waste ending up at landfills. However, the project also had some weaknesses when it came to keeping the people involved, interested, and motivated about recycling.

By conducting interviews with the facilitators and people from the community, we found that there is a mismatch in expectations; the NGO had expectations of helping the community to reduce their waste whilst raising environmental awareness, the site supervisor had visions of growing a business from recycling and some of the Eco heroes saw it as a way to earn a living in the short run. Other weaknesses came about through miscommunication between the involved stakeholders, inadequate monitoring of the Eco heroes and a lack of incentives for the households which lead to a decline in motivation. To meet and avoid these challenges, it is recommended to focus on using frequent information workshops as a motivator in the long run, to draft contracts with inputs from the locals and in general involve the community in design of the recycling project, to assure clarification.

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