



Kazo International Community Volunteering Programme

Waste (Garbage) Management in Kazo  
Project Evaluation Report

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## **Table of contents**

<b>1. Executive summary.....</b>	<b>2</b>
1.1 Background.....	2
1.2 Working method.....	2
1.3 Findings.....	2
1.4 Conclusions.....	3
1.5 Recommendations.....	3
<b>Background.....</b>	<b>5</b>
1.4 Organizational Information.....	5
1.5 Project Background.....	5
1.6 Project Summary.....	6
1.7 Purpose of Evaluation.....	7
1.8 General Background.....	7
<b>2. Assessment of the project`s goals.....</b>	<b>8</b>
2.1 Measuring Tools & Target Population.....	9
<b>3. Findings.....</b>	<b>9</b>
3.1 Project Management -Waste (Garbage) Management in Kazo.....	9
3.2 Volunteer recruitment and retention.....	13
3.3 Community Health and Morbidity.....	18
<b>4. Conclusions.....</b>	<b>25</b>
<b>5. Recommendations.....</b>	<b>30</b>
<b>6. Appendix.....</b>	<b>36</b>

## **1. Executive summary**

### **1.1 Background:**

Waste management is one of the main environmental challenges facing municipalities in Uganda today. Up until today, the waste management was based on private organizations and the local government centralized collection, transportation, and disposal strategy which is given only to civilians who pay for it.

Due to the growth of the local population, the current solutions for managing waste are insufficient, and there is more waste than the government or the civilians can handle. This is a significant factor influencing the health status of the local community and causing broad spectrum infectious morbidity.

KICVOP is a non-profit Ugandan organization in Africa belonging to the humanitarian, health, and nutrition sector. The organization work on empowering the weakened population of the KAZO village adjacent to Kampala, the Ugandan capital, including about 40,000 people.

In the last few years, KICKVOP established a project for waste (Garbage) Management in Kazo, Uganda. The project includes 5 stages as presented below:

1. Collection of data related to poorly managed waste in the area.
2. Purchasing waste collection and transportation materials.
3. Registration of workers and volunteers for fieldwork.
4. Planning the initial execution of the garbage collection process (*Currently*).
5. Monitoring and evaluation of the program.

This paper presents a snapshot of the waste (Garbage) Management project's status and recommendations for improvement, according to its evaluation.

### **1.2 Working method:**

The evaluation was based on the project goals as defined by KICVOP, divided into three categories:

1. Examination of KICVOP's information system and local community perceptions.
2. Examining the project management and finding strengths and points for improvement.
3. Evaluation of the volunteer training system and the factors that influence volunteering in the project.

### **1.3 Findings:**

In general, the findings show a well-performed project with the need to improve several matters. The "path" each worker goes through in the project is generally performed well, from the training phase, which prepares the volunteers for their job, to the division of roles between the workers, which matches their abilities, and contributes to conserving the high level of motivation. The main issues that

need to be addressed according to the findings, are the lack of important logistic means, improving several motivational aspects and improving KICVOP's publicity regarding the waste reduction.

#### **1.4 Conclusions:**

- The organization's structure fits the needs of the project and optimizes manpower distribution, but there is a wastage of human resources due to a lack of other resources.
- The volunteer training program provides the knowledge and skills required to work as volunteers.
- There are critical problems in the logistic aspect - lack of equipment and improper timing of waste transport vehicles.
- Overload, job shortages, and logistical failures are the key factors in delaying tasks.
- There is evidence of motivation among the volunteers in the project.
- The sense of commitment to KICVOP as the managing organization and collaboration during teamwork is important.
- The KICVOP Information System helps raise awareness about the importance of waste management and ways to implement it.
- There is an initial implementation of waste management processes among the population in Kazo, and a reduction in the morbidity level has been observed among the evaluation target audience.
- Implementing proper waste management processes among the Kazo population requires improvement, especially in waste reduction.

#### **1.5 Recommendations:**

##### Recommendations regarding project management:

1. Building an intermediate administrative layer.
2. Creating a connection with the community's environment leaders.
3. Acquiring physical tools according to the number of volunteers in each council cell.
4. Teaching the volunteers working in KICVOP's waste management publicity different aspects of waste reduction.
5. Creating a garbage collection system within KICVOP's waste management project.

##### Three possible options to face the lack of garbage trucks and disposing sites:

- a. Creating cooperation between KICVOP's waste management project and a private waste collection company.

- b. Acquiring or renting a garbage truck and paying a yearly fee to the government to dispose of the trash in Kazo.
  - c. Renting temporary small disposing sites inside Kazo.
6. Additional investigation of the positions that are suffering from a lack of volunteers.

Recommendations regarding volunteer's need for appreciation:

1. Offering small refreshments, other cheap rewards, or a restaurant discount.
2. Constant work on changing the mindset about the value of volunteering.
3. Conducting non-obligatory hourly lectures by volunteer experts from the area.
4. Choosing a "volunteer of the month" and writing his name in KICVOP's office.
5. Offering the option to get a formal recommendation letter for volunteers after reaching seniority of six months.

Recommendations regarding waste management rules regulations:

1. Exposure of the local councils to the public health regulations by a formal document.
2. Formally offering the local councils an escort of a waste management volunteer to court.
3. Distribution of waste management rules and awareness banners in the area of work.
4. Creating an enforcement system conducted by volunteers.

General recommendations:

1. Enhancing elements such as enjoyment and community feeling by creating work games.
2. Addressing the lack of garbage trucks and tools in the volunteer training program and day-to-day work.
3. Conducting a community cleaning day.
4. Cooperating with trash bins suppliers during KICVOP's publicity.

Recommendations regarding a scale-up:

1. Advocating for expanding Kampala's sanitary bylaws, and police enforcement to the area of Nansana.
2. Building an Intermediate administrative layer.
3. Creating a connection with the community environment leaders.
4. Combining work with games.
5. All recommendations regarding volunteers' need for appreciation.

## **2. Background**

As part of the practicum in my M.A studies of Organization Development, I will carry out a project evaluation process by looking at the logistics, human resources, and the processes involved. The process will be carried out focusing on organizational structure, work processes, and employee motivation, and will be conducted under the supervision of Dr. Sternberg Michael. In this case, due to distance restrictions, the process will be based on the use of questionnaires, interviews, and analyzing images and videos from the field. At the end of the process, the diagnostic report will give the manager a snapshot of the project's status and recommendations for improvement. Also, in this case, the report will show implications for scale-up.

### **2.1 Organizational Information**

KICVOP is a nonprofit organization, founded in 2008 by Ugandans and International Volunteers. It is non-sectarian and nonpartisan, currently operating in Kazo ward in Nansana Division, Uganda. Its major purpose is to assist underprivileged people, Orphans, and Vulnerable children, as well as those infected with, and or affected by HIV/AIDS attain adequate living conditions and education.

KICVOP includes volunteer work with the local community in the fields of health, nutrition, and education. It currently runs a few projects such as the community emergency van (ambulance), an educational project through a community library, and a waste management project.

The organization includes local (Ugandan) employees, as well as local and international volunteers. It works on an interface with different governmental and non-governmental organizations and is composed of four bodies: The General Assembly, Board of Trustees, The Executive Board, and The Secretariat.

### **2.2 Project Background**

In Uganda today, and the Kazo ward in particular, the rapid growth of the urban areas has in many cases outpaced the ability of the urban authorities to provide adequate housing, roads, water supplies, sewers, collection (transportation and disposal) of solid waste. Nansana municipality is being assisted by private companies that demand the residents' payment for their service, and therefore many households are left untreated. Nansana Municipality has an estimated population of 365,124. From this, Kazo takes its share of 38,424 people. Based on these figures, there is a substantial amount of households that do not live in decent conditions and generate waste that is not managed properly.

There are two broad categories of waste in Kazo: Residentials which produces mainly wet organic waste, and commercial which generates solid waste. Street waste is generated from street sweeping and consists of sand, litter, dust and drain cleanings, animal fecal material, and even dead animals. Abandoned vehicles as well as special waste generated from health centers, slaughterhouses, and sewage waste are also a substantial concern that does not get enough attention. Uncollected garbage worsens environmental hazards such as fire breakouts, pests, increasing risk of flooding due to clogged waterways and disease vectors which create human health problems. Secondly, during the wet season (rainy period of about four months), the uncollected garbage flows into the surrounding water streams and block the sewerage. That causes sewerage floods that pollute the water channels and spring water wells that are being used by the general population for all their domestic uses. This has registered an unimaginable number of typhoid cases in Kazo and the close neighborhood.

### **2.3 Project Summary**

The project focuses on organizing a structured program for waste management and educating the general population about the need to properly dispose of waste. It includes 5 stages.

#### **Stage 1-**

- a. Collection of vector-borne infections data concerning poorly managed waste in the area.
- b. Recruiting and training volunteers for community outreach and education.
- c. Educating the general population through volunteers.
- d. Engaging education institutions, other government, and non-government institutions.

**Stage 2-**Procurement of waste collection and transportation materials.

**Stage 3-**Recruiting casual workers and volunteers from the community for field clean-up.

#### **Stage 4-**

- a. Planning with all stakeholders the initial execution of the garbage collection process. This phase involves local leaders and government offices, for the dumping centers which are managed by them.
- b. Distributing sets of garbage cleaning tools through local council cells. The toolsets will be at the council's responsibility.
- c. Supervision by KICVOP and trained project volunteers.

**Stage 5-**Monitoring and evaluation the level of success of the project and it's various steps.

Currently, KICVOP is executing stages two to four simultaneously, without implementing the first phase due to lack of resources. During implementing the stages above, KICVOP is meant to take action to ensure the sustainability of the project. Those actions will include collaboration with law officials to establish by-laws that will support the anti-littering and proper waste disposal agenda. Also, KICVOP will look for collaboration with private companies to retain low cost or free cleaning services, connecting community members with means to private cleaning companies, and rental of cleaning tools to households and private companies to create funds for equipment maintenance and other project needs.

#### **2.4 Purpose of Evaluation**

Evaluating the waste management project and identifying its strengths and challenges in order to improve the operation of the current project and to examine the possibility of scale-up.

#### **2.5 General Background**

Uganda is a country in East-Central Africa. In order to evaluate the project properly, we must put in mind a few significant characteristics of the environment in which the project takes place- Kampala and Kazo ward specifically;

1. High-density population living conditions. Although there are spacious areas, a significant part of the population lives in crowded neighborhoods due to their low social-economic status.
2. Low income and basic living conditions. A significant portion of the population is in low social-economic status. Most of the population in Kazo work long hours and have low income, to the extent of not having basic living conditions such as three meals a day, the ability to go to health care, education ext.
3. Unique culture. The African culture on its own is unique and different in many ways from the western and other common cultures. In addition, the culture in the continent is diverse by itself, from different countries to different tribes within those countries. The Ugandan culture has three prominent features; First, a strong sense of community and concern for others. Second, clear rules of gender and age hierarchy. And third, a tendency of obedience instead of initiation, which is assimilated in the population since infancy.

### 3. Assessment of the project's goals

No.	Goal	Measure
1	To have a 90% garbage heaps free community. This translates to getting rid of 90% of the waste on the streets and garbage piles within the community	Level of awareness of the implications of street dumping
		Reduction of the amount of waste on the street
		Low levels of dirt among people with awareness of proper waste management
2	Reducing the level of morbidity in the Kazo area	Rate of morbidity in diseases resulting from street waste problems
3	<b>Recruiting and training volunteers for cleaning and disinfecting the community</b>	
3A	Recruitment and training	Motivation level for project participation
		Volunteer Motivation source
		Acquire the required skills
		Adjusting the recruited population to the job
3B	Employee retention	Satisfaction (satisfaction, self-fulfillment, personal development, management response)
		Source and motivation level
4	To have 75% of the total population of Kazo well informed about the dangers and effects of poorly managed garbage to society	Awareness level among the population in Kazo
		Explanation of relevant content
		An explanation that can be applied by the target audience
		Explanation tailored to the target audience
		High awareness level among people exposed to the project's explanation
5	<b>Establishing waste management structure and collecting the existing heaps of waste within the community of Kazo and the closest neighborhood.</b>	
5A	Functioning organizational structure	Accessibility of volunteer management staff
		A clear hierarchy for task management
		Effective interface with external organizations
		An organizational structure that promotes teamwork
		A structure that enables employee development
5B	Logistics	Proper utilization of resources
		Purchasing appropriate tools
5C	Personnel	Workforce Output
		Proper utilization of personnel: - Proper distribution of personnel

No.	Goal	Measure
		Correlation between "ability" and "role"
5D	Project control system	Existing control system
		Profit and loss report
		Project control report

### 3.1 Measuring Tools & Target Population

Our evaluation will be based using the following tools:

- Questionnaires: 3 short questionnaires for target audiences- general population, the project's workers/ volunteers which are a part of KICVOP, and other project's volunteers.
- Information given verbally by the project manager and other managers.
- Photos and video of the project.

**Note: Due to the Covid-19 virus situation in Uganda, we were unable to attain document and report analysis from government health officials.**

## 4. Findings

### 4.1 Project Management -Waste (Garbage) Management in Kazo

The questionnaire was attended by 25 volunteers of KICVOP's Waste Management project, among them, 52% (13) were man and 48% (12) were woman, in the ages of 17 to 57. 68% of the participants were project's volunteers and 32% of them were project's workers, while 76% of the total are field workers.

The following is an overview of the main questionnaire's findings, the average of the data will be marked as (M), the standard deviation will be marked as (SD):

#### Part A: Organizational Structure

Most of the participants feel that their managers are investing their time in the project (M=4.72, SD=0.54) and they can contact them about any question (M=4.76, SD= 0.83). Also, the role and responsibilities of employees in the organization are clear (M=4.61, SD=0.91) and the division of roles in the organization helps to do the job successfully and quickly (M=4.72, SD=0.84).

The participants declared that communicating with the manager and team helps doing a good job at a very high level (M=4.88, SD=0.33) and they feel that they can always talk with someone at work (including managers) if they have a work-related problem (M=4.72, SD=0.83).

Moving forward to collaboration during the project, the participants declared that the managers encourage them to work as a team (M=4.8, SD=0.41) and there is a manifestation of collaboration between team members in the project (MD=4.68, SD=0.74).

Part B: Logistics

Looking at the logistic part of the project, the participants declared unambiguously (SD>1) regarding having the physical tools required to perform duties (M=3.44, SD=1.61) and supplying tools needed for the job (M=4.65, SD=1.15). Examining the results by dividing into categories such as gender, age, profession, and the role in the project, doesn't change the result dramatically (SD<1).

Part C: Personnel

Most of the participants declared that their role (and other's role) matches their ability (M=4.48, SD=0.98).

There is an unambiguous declaration (SD>1) regarding the number of people for carrying out the project (M=3.56, SD=1.64), the load of work each of them feels (M=3.52, SD=1.78) and the completion of the tasks given (M=2.7, SD=1.7). Examine the result by dividing into categories such as gender, age, profession, and the role in the project, doesn't change the result dramatically (SD<1).

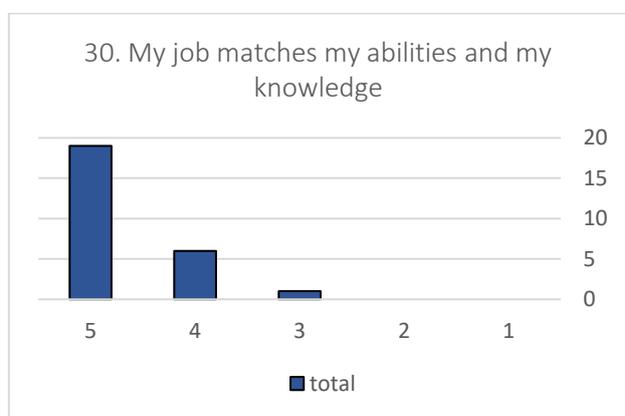
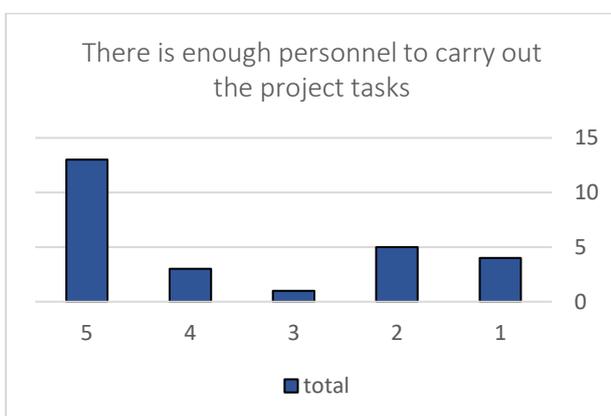
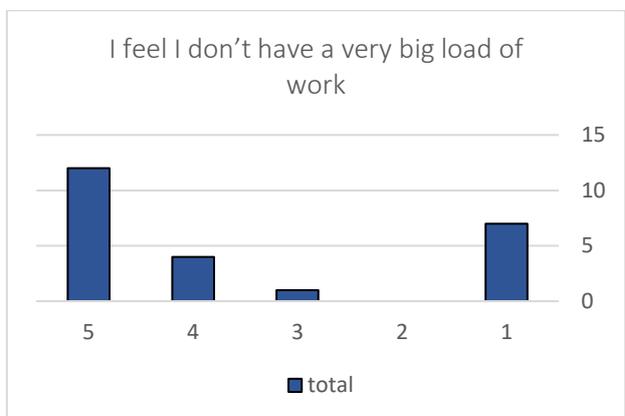


Chart 1: *Organizational Structure*

	Mean	Mode	Standard deviation
I can contact my manager about any questions	4.76	5	0.83
I feel that the managers are investing their time in the project	4.72	5	0.54
The role and responsibilities of employees in the organization are clear	4.64	5	0.91
I know who to turn to when I need help	4.83	5	0.38
I can always talk with someone at work if I have a work-related problem	4.68	5	0.85
Communicating with the manager and my team helps me do a good job	4.88	5	0.33
The communication with people of different positions is convenient	4.72	5	0.54
The division of roles in the organization helps to do the job successfully and quickly	4.72	5	0.84
Working with the staff and managers of the project develops me	4.83	5	0.38
Working in the waste management project develops me	4.72	5	0.46
There is a collaboration between team members	4.64	5	0.86
The division of roles requires me to work with other people in the project	4.72	5	0.61
The project managers encourage us to work in a team and collaborate	4.80	5	0.41
<b>Total (N=25)</b>	4.74	5	0.63

1= very low level, 5= very high level

Chart 2: *Logistics*

	Mean	Mode	Standard deviation
I have the physical tools required to perform my duties	3.44	5	1.61
The organization gives me tools that I need in my job	4.65	5	1.15
<b>Total (N=25)</b>	4.02	5	1.52

Chart 3: *personnel*

	Mean	Mode	Standard deviation
I feel that I use a big part of my personnel abilities in my project role	3.92	5	1.41
I feel I have the skills to do my job	4.76	5	0.66
I feel I don't have a very big load of work	3.52	5	1.78
There are enough people in my position in the project	3.56	5	1.76
There is enough personnel to carry out the project tasks	4.56	5	0.87
My job matches my abilities and my knowledge	4.68	5	0.56
The completion of the tasks given to me in the project is on time	2.61	1	1.75
The completion of tasks in the project is on time	2.78	5	1.68
<b>Total (N=25)</b>	<b>3.79</b>	<b>5</b>	<b>1.57</b>

In addition to the statistical data questions, the participants were requested to answer several questions verbally. The participants who mentioned in the statistical part that they don't have the physical tools that are required to do their duties were requested to elaborate in words which tools are missing in their opinion. Out of 29 participants, 12 (41%) reported the lack of physical tools. Out of them, 75% (9) mentioned missing a garbage truck or other vehicle to collect the trash. A third of the people said they are either missing tools or that the addition of tools will improve their work significantly. Specifically detailed were the wheelbarrows, brooms, and rakes, but also gloves, work boots, and hoes were mentioned. Also, 25% (3) of the people answering this question mentioned a need for more garbage containers that will enable the people in different areas of the village to properly dispose of their garbage, and also prevent the garbage from scattering again after the collection. One person also mentioned the lack of internet data for administrative and coordination purposes. When asked about the distribution of unnecessary tools there were no responses.

Afterward, the participants were questioned about the reasons for delaying the completion of tasks in the project activity. Except for two answers, all the answers focused on the lack of physical tools. The most common answer (38%) was the lack or delay of garbage trucks. The delay was described as frequent and with a duration of a few days. The source for the delay was mentioned concerning the need to provide fuel to the operators, without having the resources for it. 29% of the participants mentioned the lack of a sufficient number of the equipment for all the volunteers that

come during the day to volunteer. Other tools were mentioned as well, as mentioned above. Two answers regarded the human factors, one was the lack of enough volunteers for the large area of work, and the other was lack of communication between the volunteers.

In response to the main elements that delay the personal ability of volunteers to complete tasks in the project activity, almost a third of the people reported once again the lack of tools and garbage trucks and the unwillingness of people to pay for the garbage truck services. In addition, the participants mentioned the lack of volunteers and the tardiness of volunteers. A third element that was considered as a factor for delay at completing tasks was the lack of proper waste management in the community as well as the lack of information about how to manage waste in the community.

When asked what will help them to properly perform their project activities, most of the participants responded a need for tools and garbage trucks. Another common answer was more publicity about proper waste management to educate the public. Few participants also referred to the feeling of being appreciated by giving refreshments or certificates of recognition as an aspect that can improve their work. One participant (Fieldworker) also mentioned the need for better collaboration between the volunteers.

At the end of the questionnaire, the participants were given an open question Where they could elaborate on the subject freely. One participant emphasized the need to keep on conducting waste management publicity, especially in remote areas due to the severe lack of knowledge about the subject in his community. The rest of the participants responding to this question (55%) expresses gratitude to KICVOP, it's manager, and other staff members, for conducting the project and giving them a platform to help the community.

#### **4.2 Volunteer recruitment and retention**

The questionnaire was attended by 29 volunteers of KICVOP's Waste Management project, among them, 62% (18) were man and 38% (11) were women, all among the ages of 18 to 40. 97% of the participant had prior acquaintance with KICVOP and only 3% did not. Among those who have prior acquaintance with KICVOP, 38% (11) are volunteers in the organization, and the rest know it second-handed, when 34% (10) know a volunteer in the organization, 14% (4) know a client of the organization, and 14% (4) know the organization from the local community. Most of the participants in the questionnaire (93%) were exposed previously to KICVOP's publicity about waste management, and 90% of the participants noted having prior knowledge about waste management.

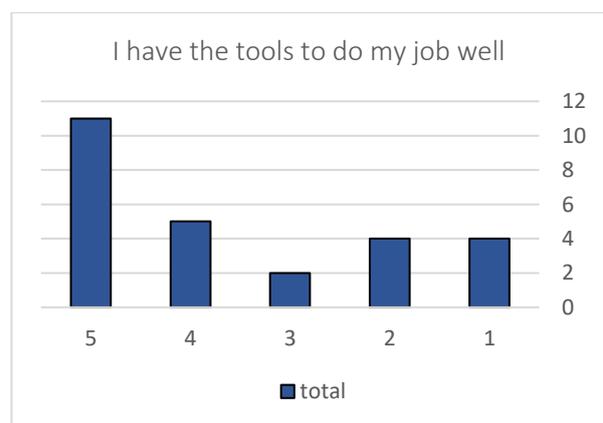
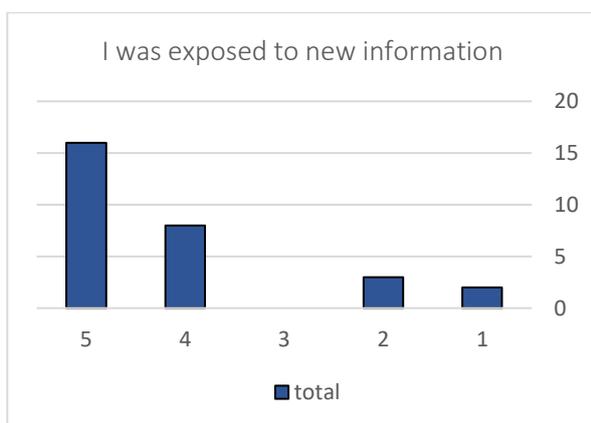
The following is an overview of the main questionnaire's findings, The average of the data will be marked as (M), the standard deviation will be marked as (SD):

Part A: volunteer training program

The majority of the participants declared in a very high level that they were exposed during the training program to new information (M=4.14, SD= 1.27), but demonstrated high variance about the level of receiving new tools for implementing proper waste management (M=3.19, SD= 1.81) when a little more than half of the participants (58%) declared very high level and the rest (42%) declared very low level. Also, most participants felt they got new speech and conversation abilities (M=4.55, SD= 0.87), and that they learned during the training program relevant information about the organizational structure (M=4.57, SD= 0.69).

Most of the participants specified that the training program provided them the relevant knowledge and skills in waste management at a very high level (M=4.42, SD= 0.99), that it prepared and trained them to their position as volunteers in a very high level (M=4.2, SD= 1.15), and showed a very high sense of self-efficiency and preparedness to do their work as volunteers (M=4.51, SD= 0.85).

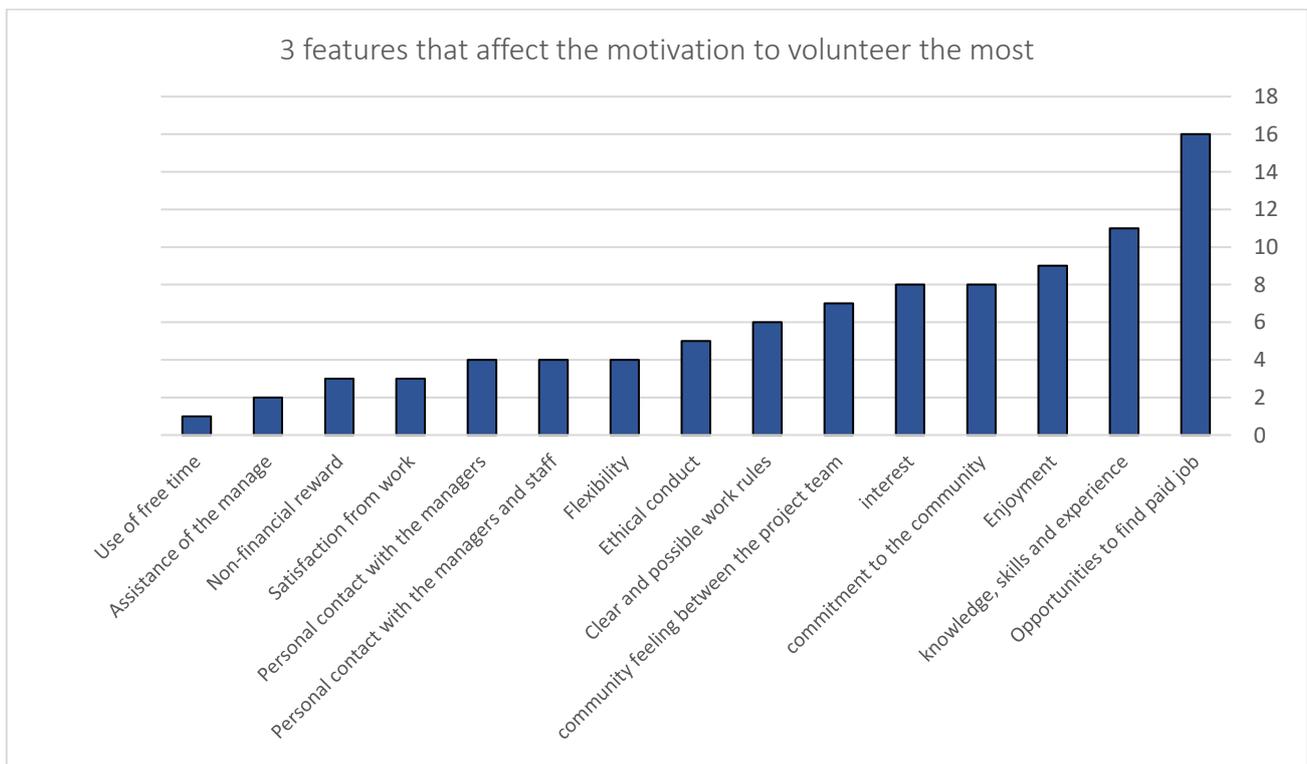
However, a high variance was documented in the perception of the participant according to receiving proper tools for their position both in the training program and in the field (M=3.38, SD= 1.68). Examining the difference according to gender showed women demonstrated mid-high level (M=3.78, SD= 1.91, and men mid-low level (M=2.88, SD= 1.91), but the variance was still high the source of it was unfound.



Part B: volunteer motivation

The volunteers showed a very high motivation to participate in the waste management project (M=4.71, SD= 0.56), as well as a high level of willingness to recommend other people to volunteer in it (M=4.79, SD= 0.49).

When being requested to choose three aspect that **aspects** affect their motivation to volunteer (in general) the most out of a specified list, the aspect that was chosen as the most influential and was marked over half of the participants (55%) was the Opportunity to find a paid job due to the volunteering. After it, the most influential aspect was the opportunity to acquire knowledge, skills, and experience (38%), and then enjoyment (31%). After those, both senses of commitment to the community (28%) and level of interest in the work content (28%) were chosen as important aspects that influence the level of motivation to volunteer. The rest of the aspects were chosen in descending order; A community feeling between the project team, clear and attainable work rules, ethical conduct of the organization managing the project, flexibility in work conditions and having personal contact with the managers, staff, and volunteers in the program, satisfaction from work and non-financial rewards, manager assistance in work-related issues and finally, use of free time. None of the volunteers chose the aspect of having challenging work to influence their motivation to volunteer.



### Part C: The existence of motivation factors in the waste management project

The majority of the participants testified that the motivation factors exist in the project in a very high level (M=4.36, SD= 1.09) when the factors that got the highest satisfaction level were acquiring knowledge, skills, and experience (M=4.89, SD= 0.31), level of interest in work content (M=4.83, SD= 0.38) and enjoyment (M=4.76, SD= 0.44). The three factors that the participants have shown as least satisfied from in the workplace were the level of challenge at work (M=2.46, SD= 1.65) in which there was high variance and the most common answer was 1 (very low level), as well as non-financial rewards (M=3.16, SD= 1.40) and the Opportunity to find a paid job due to the volunteering (M=3.67, SD= 1.35), in which the most common answer was 4 and 5 respectively (high-very high level).

Chart 1: *Volunteer training program*

	Mean	Mode	Standard deviation
I was exposed to new information	4.14	5	1.27
I got new tools for maintaining successful waste management	3.19	5	1.81
I got new speech and conversation abilities	4.55	5	0.87
I have the information that I need to do a good job	4.64	5	0.68
I feel confident standing in front of people and explaining to them about waste management	4.66	5	0.61
I learned about the organizational structure and the aspects of it that are relevant to my work	4.57	5	0.69
I have the tools to do my job well	3.58	5	1.55
The training program prepared me for my volunteering work	4.20	5	1.15
<b>Total (N=29)</b>	4.21	5	1.23

1= very low level, 5= very high level

Chart 2: *volunteer motivation level*

	Mean	Mode	Standard deviation
It is important for me to volunteer in the project	4.76	5	0.44
I want to continue volunteering at the project for a longer time	4.66	5	0.67
I would recommend people I know to volunteer in the project	4.79	5	0.49
<b>Total (N=29)</b>	4.74	5	0.54

1= very low level, 5= very high level

Chart 3: *The existence of motivation factors in the waste management project*

	Mean	Mode	Standard deviation
The volunteer work is interesting for me	4.83	5	0.38
I enjoy volunteering in the project	4.76	5	0.44
Volunteering in the project makes me feel satisfied	4.66	5	0.61
During volunteering, I got knowledge, skills, and experience	4.89	5	0.31
The work challenges me	2.46	1	1.65
My volunteering is contributing to the community	4.64	5	0.83
There is a community feeling between the project team	4.46	5	0.71
I have Personal contact with the managers, staff, and volunteers in the program	4.52	5	0.87
KICVOP is managed ethically	4.62	5	0.57
The project manager helps me when I ask for help	4.57	5	0.84
The rules of work in the project are clear and possible	4.59	5	0.78
There is flexibility about how to do the work	4.71	5	0.46
Volunteering helped me to find a job	3.67	5	1.35
Volunteers receive non-financial rewards for volunteering (such as a certificate of recognition, training days, fun team activities, etc.)	3.16	4	1.40
<b>Total (N=29)</b>	4.36	5	1.09

1= very low level, 5= very high level

In addition to the statistical data questions, the participants were requested to answer several questions verbally. The volunteers have been asked what, in their opinion, is the most important thing they have learned in the training program. In this question 18 volunteers answered while most of them (9/18, 50%) referred to the importance of cleaning and keeping the community garbage-free, others (5/18, 27.78%) referred to the fact of being trained for doing and handling their job right, and the rest (4/18, 22.22%) referred to getting to know KICKVOP and the project volunteers.

Moving forward, the volunteers have been asked if there were any training contents that they thought were unnecessary/ irrelevant. In this question, only one answer was submitted referring to the fact that during the training there was repetitive content such as the need to put on gloves.

Asking if there are aspects of the project that reduce their motivation to volunteer, 22 answers have been submitted, and can be categorized into 4 topics: lack of facilitation and especially trucks (9/22, 40.9%), lack of time management (6/22, 27.27%), the need of training refreshments (4/22, 18.18%) and the need for certificates of recognition (3/22, 13.63%).

The last question in the questionnaire examined if the volunteers have anything to add, 5 answers were submitted that can be categorized into 2 topics; 3 people pointed out the fact that there is a problem with the delay of the arriving time of the garbage truck, and the rest pointed out their wanting of continues work on KICVOP's waste management project.

### **4.3 Community Health and Morbidity**

The questionnaire was attended by 51 participants from the community in Kazo, among them, 27.5% (14) were man and 72.5% (37) were woman, all in the ages of 20 to 48. 96.1% (49) of the participants were community resident, 2% (1) project volunteer, and 2% (1) project worker. 56.9% (29) were exposed to the KICKVOP's waste management publicity (the rest did not- 43.1%, 22) and 51% (26) had previous acquaintance with KICVOP organization (the rest did not- 49%, 25).

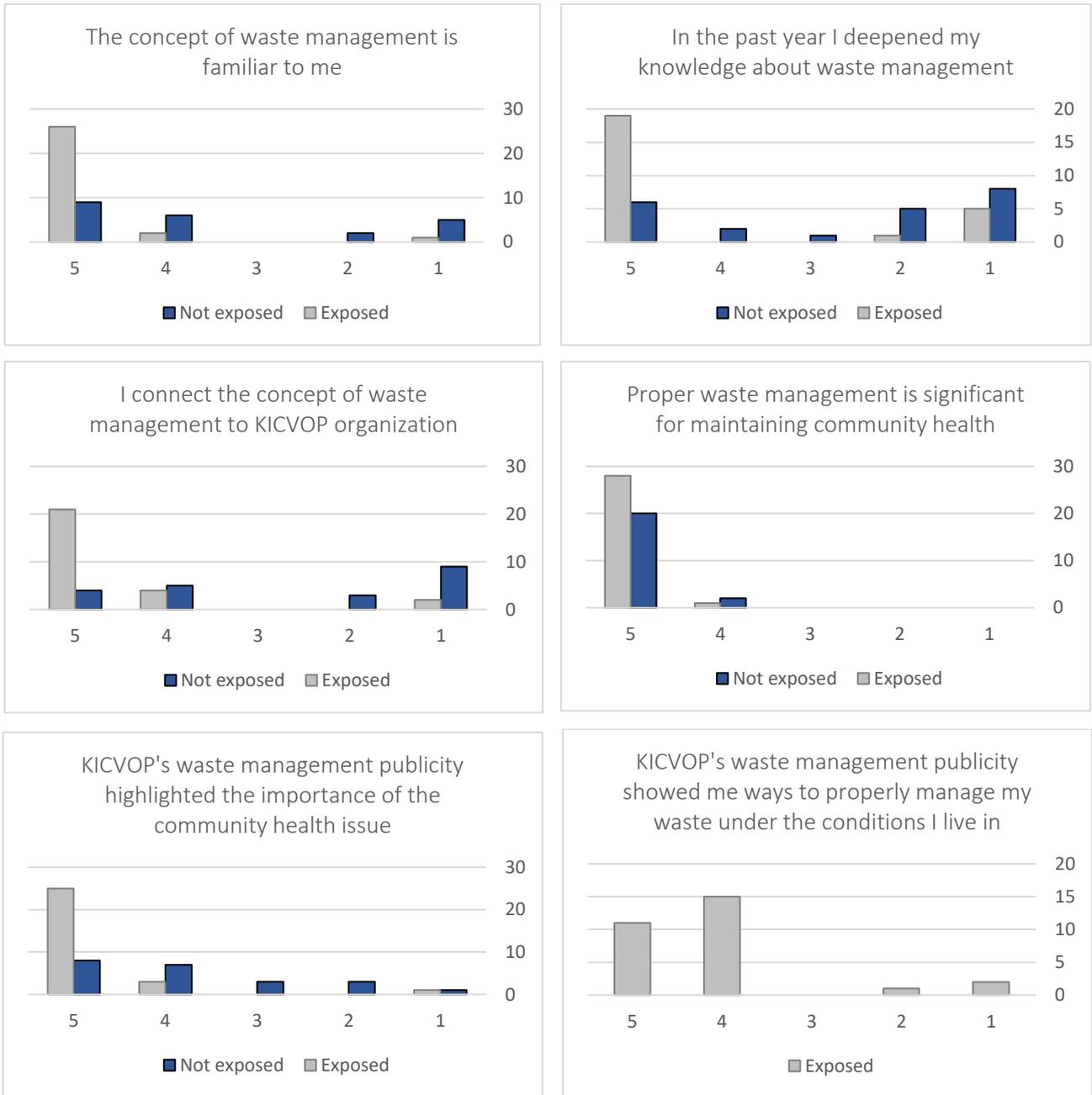
The following is an overview of the main questionnaire's findings, the average of the data will be marked as (M), the standard deviation will be marked as (SD):

#### **Part A: Assimilation**

Most of the participant declared that the concept of waste management is familiar to them (M=4.25, SD=1.37), while the participants who were exposed to KICVOP's waste management publicity showed a very high level of understanding the subject (M=4.79, SD=0.77), and those who were not exposed to it showed a mid-high level of understanding and more variance among them (M=3.55, SD=1.65). A larger awareness of the importance of the topic and its connection to KICKVOP organization is shown among participants who were exposed to the KICVOP's waste management publicity (M=4.66, SD=0.94) compared to the total population (M=4.04, SD=1.44). The participants who were exposed to the KICVOP's waste management publicity declared that they learned clear ways to manage waste (M=4.1, SD=1.08), while looking at this criteria at the total population there is a decrease (M=3.82, SD=1.23), and more substantial decrease looking at those who were not exposed previously to the publicity (M=3.45, SD=1.34).

In addition, the participants that were exposed to the KICVOP's waste management publicity showed a very high level of willingness to inform their friends about the need for proper waste management

(M=4.62, SD=0.82), in comparison to the participant that did not have exposure to KICVOP's publicity (M=3.82, SD=1.44).



Part B: Implementation

When asked about different aspects of applying proper waste management, the participants showed a very high level of proper waste management maintenance at their workplace and home (M=4.67, SD=0.66). Although they showed a high level of decreasing amount of waste during the week, it was lower relative to the rest of the aspect examined (M=4.04, SD=1.21). In a general view, the total

population declared that in the past year they reduced the amount of waste they produce per week (M=4.37, SD=0.87).

Looking at the factors above regarding those who were exposed to the KICVOP's waste management publicity there isn't a great difference.

### Part C: Results

The participants showed a very high level of understanding of the connection between garbage on the street and morbidity (M=4.8, SD=0.4). They also declared a mid-high level of deepening their knowledge about the subject in the past year (M=3.43, SD=1.81), for those who were exposed to the publicity (M=4.08, SD=1.68) in a higher level than those that weren't exposed to it (M=2.68, SD=1.70). Also, the participant declared that their thoughts regarding the connection between dirt and morbidity changed in a high level in the past year (M=4.18, SD=1.13), when participants which were exposed to KICVOP's publicity showed a higher understanding of the connection and were more homogeneous (M=4.59, SD=0.57) than those who weren't exposed to it (M=3.68, SD=1.43).

When asked about the conditions in Kazo, the participant declared that the level of cleanliness in the neighborhood is low (M=2.92, SD=1.38) and that in the past year, there was an improvement in the matter (M=3.53, SD=1.21). Looking at the morbidity of infectious diseases related to street waste, the participants mentioned a high level of decrease in the past year (M=4.22, SD=0.91), in which participants that were exposed to KICVOP's publicity showed a higher level of decrease in the amount of infectious diseases they suffered from (M=4.48, SD=0.87) than participants without exposure to the publicity (M=3.37, SD=1.49).

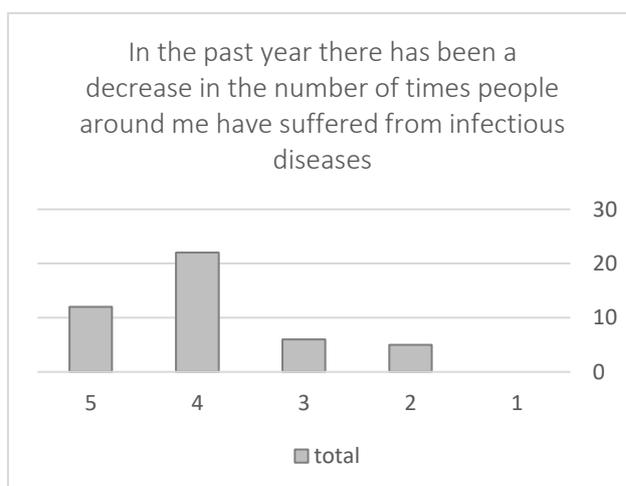
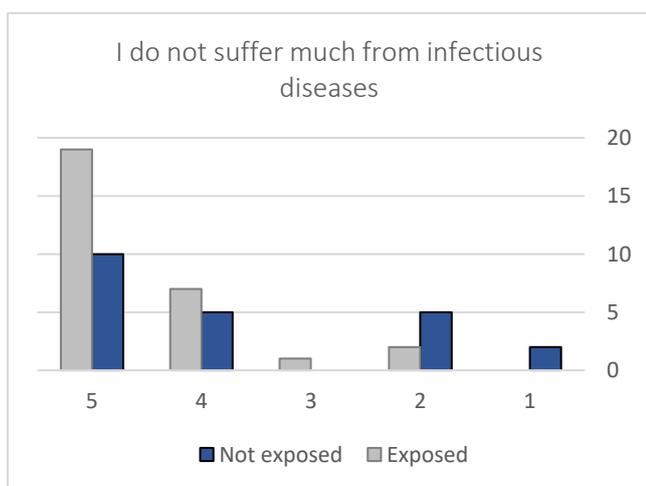


Chart 1: Assimilation of waste management information

	Total			Previous exposure*			No exposure*		
	Mean	Mode	Standard deviation	Mean	Mode	Standard deviation	Mean	Mode	Standard deviation
The concept of waste management is familiar to me	4.25	5	1.37	4.79	5	0.77	3.55	5	1.65
I connect the concept of waste management to KICVOP organization	3.71	5	1.68	4.56	5	1.09	2.62	1	1.69
Proper waste management includes garbage disposal to designated sites	4.75	5	0.48	4.86	5	0.35	4.59	5	0.59
Proper waste management includes reducing the amount of garbage each home/ workplace generates	4.8	5	0.45	4.90	5	0.31	4.68	5	0.57
Proper waste management is significant for the community	4.90	5	0.3	4.97	5	0.19	4.82	5	0.39
Proper waste management is significant for maintaining community health	4.94	5	0.24	4.97	5	0.19	4.91	5	0.29
KICVOP's waste management publicity highlighted the importance of the community health issue	4.35	5	1.09	4.76	5	0.79	3.82	5	1.22
KICVOP's waste management publicity showed me ways to properly manage my waste under the conditions I live in	3.82	4	1.23	4.10	4	1.08	3.45	4	1.34
I tell friends who throw garbage in the street about the need for waste management	4.27	5	1.18	4.62	5	0.82	3.82	5	1.44
In my opinion there is a connection between garbage on the street and infections	4.8	5	0.4	4.89	5	0.31	4.68	5	0.48
<b>Total (N=51)</b>	<b>4.22</b>	<b>5</b>	<b>1.18</b>	<b>4.74</b>	<b>5</b>	<b>0.71</b>	<b>4.10</b>	<b>5</b>	<b>1.29</b>
<b>Previous exposure (N=29), No exposure (N=22)</b>									

1= very low level, 5= very high level

Chart 2: Implementation of proper waste management

	Total			Previous exposure*			No exposure*		
	Mean	Mode	Standard deviation	Mean	Mode	Standard deviation	Mean	Mode	Standard deviation
I maintain proper waste management at my home	4.70	5	0.51	4.75	5	0.52	4.64	5	0.49
I maintain proper waste management at my workplace	4.64	5	0.80	4.76	5	0.66	4.50	5	0.95
I produce a small amount of waste during the week	4.04	5	1.22	4.07	5	1.25	4.00	5	1.20
<b>Total (N=51)</b>									
<b>Previous exposure (N=29)</b>	4.45	5	0.94	4.51	5	0.93	4.38	5	0.95
<b>No exposure (N=22)</b>									

1= very low level, 5= very high level

Chart 3: *Manifestation of proper waste management*

	total			Previous exposure*			no exposure*		
	Mean	Mode	Standard deviation	Mean	Mode	Standard deviation	Mean	Mode	Standard deviation
In the past year I deepened my knowledge about waste management	3.43	5	1.81	4.08	5	1.68	2.68	1	1.70
My neighborhood is very clean	2.92	3	1.38	3.11	3	1.31	2.68	1	1.46
I do not suffer much from infectious diseases (malaria, typhoid, cholera, diarrhea)	4.16	5	1.22	4.48	5	0.87	3.73	5	1.49
People around me do not suffer much from infectious diseases (malaria, typhoid, cholera, diarrhea)	3.64	4	1.27	3.57	4	1.23	3.73	5	1.35
My opinion about the link between dirt and morbidity has changed over the past year	4.18	5	1.13	4.59	5	0.57	3.68	5	1.43
In my opinion, my neighborhood is cleaner today than it was a year ago	3.53	4	1.21	3.67	4	1.14	3.36	4	1.29
In the past year I have reduced the amount of waste I produce per week	4.37	5	0.87	4.38	5	0.86	4.36	5	0.90
In the past year there has been a decrease in the number of times I have suffered from infectious diseases (malaria, typhoid, cholera, diarrhea)	4.50	5	0.81	4.61	5	0.74	4.36	5	0.90
In the past year there has been a decrease in the number of times people around me have suffered from infectious diseases (malaria, typhoid, cholera, diarrhea)	3.91	4	0.92	3.84	4	0.85	4.00	4	1.03
<b>Total (N=51)</b>									
<b>Previous exposure (N=29)</b>	3.85	5	1.30	4.04	5	1.16	3.62	5	1.41
<b>No exposure (N=22)</b>									

1= very low level, 5= very high level

In addition to the statistical data questions, the participants were requested to elaborate verbally about the main challenges that disrupt their ability to conduct proper waste management in their living conditions. 76% of the participants mentioned logistic challenges. 53% of the participants mentioned problems regarding garbage trucks. Several participants reported they don't work enough during the month, but most of the answers regarded the frequent delays in collecting the garbage due to inefficiency or lack of the household's ability to pay for the service. The participants also mentioned that the fact that garbage is not evacuated on time causes people to throw more garbage in the streets, and the need for cheap and steady sanitary workers. 22% of the participants mentioned the need for better facilities, such as waste containers, and one participant commented about the lack of a place to put the waste containers due to the dense living conditions. Few people mentioned the need for organized dumping sites in the area. Other challenges that were exposed in this question were the low level of community awareness to proper waste management and its knowledge to conduct proper waste management, and the lack of clear guidelines, rules and monitoring system conducted by the stakeholders.

Afterward, the participants were asked for their opinion about means that can help them maintain proper waste management. 71% presented logistics solutions such as adding more garbage trucks, containers (public and personal), and even cleaning tools. It was also suggested to arrange garbage collectors in the area and to create more companies that provide waste collection services. Few people focused on the delay of the Sanitation workers and suggested KICVOP communicates with the different service providers to improve their services. 33% of the participants mentioned the need of more waste management publicity to the general community and the market vendors specifically, with emphasis on waste disposal, sorting and reduction (by general reduction, recycling and reusing) as a way of conserving the environment, for the benefit of the present and future general population. One participant advised cooperating with the local councils in order to achieve better results. Other people mentioned the need of establishing clear and strict laws, guidelines, and supervision in the matter. A different comment introduced an idea of organizing a community cleanup.

At the end of the questionnaire, the participants were given an open question Where they could elaborate on the subject freely. One participant wrote about the need for waste containers in households and markets, and another asked KICVOP to organize a campaign for the benefit of helping the community obtain waste containers. Another person mentioned that some residents are reluctant to clean the area due to its large scale. The rest of the participants responding to this

question (38%) expresses gratitude to KICVOP, for conducting the project and asked for the organization to keep conducting its projects in the community.

## **5. Conclusions**

The analysis of all three questionnaires led to several conclusions regarding various aspects of the KICVOP waste management project:

**The organization's structure fits the needs of the project and optimizes manpower distribution, but there is a wastage of human resources due to a lack of other resources.**

Looking at the organization's structure for the project's needs, versus the employees' needs shows suitability, especially regarding role definition, hierarchy, communication with managers, and communication within the team. All the above contribute to the effective and successful implementation of the work in the project. Also, it is noticed that employees and volunteers feel that:

- The project managers are accessible
- There is a clear hierarchy regarding the execution of tasks
- Communication with external bodies is effective
- The organizational structure enables teamwork
- The organizational structure allows employee development

Also, personnel seems to be distributed successfully within the project and that there is a match between the volunteers' / employee's capability and their roles. However, there is still a burden on the volunteers and a feeling of lack of manpower in various areas, as well as places where there is a wastage of human resources as they wait for logistical resources to carry out the work.

**The volunteer training program provides the knowledge and skills required to work as volunteers**

According to the volunteers' evaluation of the recruitment and retention questionnaire, the training is presented as appropriate for the job. The volunteers who have completed the training feel that they have the skills and ability to do their fieldwork.

### **There are critical problems in the logistic aspect - lack of equipment and improper timing of waste transport vehicles**

These issues have risen among all questionnaires and appear to be significant for all populations of respondents.

- Lack of physical tools for implementing the fieldwork and specifically the lack of vehicles for collecting waste and public/ private bins in Kazo was demonstrated. This shortage impairs the ability of the project volunteers to do their job fully and causes delays in the execution of tasks, as well as disrupts the general population's ability to maintain proper waste management.
- There is a shortage of designated waste disposal sites, which along with the delay in waste collection results in a redistribution of the waste collected. This issue also impairs the motivation of volunteers and the local population to make sure that waste is disposed of properly and therefore causes double harm to the project goals.
- Considering the above, it can be concluded that increasing the number of public trash bins, determining designated waste dumping sites and regular garbage truck management will significantly improve the village's ability to keep the area clean.

### **Overload, job shortages, and logistical failures are the key factors in delaying tasks**

- The findings indicate that task completion tends to be delayed within the project, with the main factor being the lack of waste clearance vehicles.

Other factors affecting timely tasks are:

- Lack of manpower in certain positions, which creates a burden for the volunteers and makes it difficult for them to do their work. There is a need for a further examination to determine the specific fields in which this problem lays.
- Lack of physical tools for fieldwork which results in a waste of manpower coming to volunteer and unable to work.

### **There is evidence of motivation among the volunteers in the project**

Volunteers' satisfaction with the project is very high and so is their motivation to continue volunteering. Therefore, it can be concluded that the project as it is currently managed, successfully preserves the volunteers and their desire to volunteer in the project. Also, the willingness of current

volunteers to recommend volunteering in the project to their acquaintances reflects ongoing satisfaction and high confidence in the project.

Three motivational factors were found to be especially significant to the volunteers and were also expressed at a high level in the project, indicating its good condition in terms of employee retention:

1. Acquire skills, knowledge, and experience during volunteer work.

There is a need to pay attention to the fact that most volunteers testified that the level of challenge in the work was low. Although the challenge element was not perceived by the volunteers as a motivating factor, it is important to note that without a challenge in the role, the opportunity to acquire knowledge, skills, and experience will end after training and the initial volunteering period. Also, there is a good probability that due to language gaps the phrase "challenge" was understood as a negative aspect such as "struggle" and not a positive aspect. Therefore, it is important to maintain a certain level of novelty and challenge in the job, even if it is not a motivational aspect by itself.

2. pleasure.

Here as well, the element of community in the team is ranked low in comparison to the other motivational factors, but it is important to give it a place as it can greatly influence the enjoyment factor during volunteering, which is a high motivational factor.

3. Ranked equally - the level of interest from the work and sense of commitment to the general community.

This finding of the sense of community commitment reflects that on one hand, it is advisable to recruit volunteers who are originally characterized by a sense of community commitment, and on the other hand, it is important to ensure that they do not experience frustration from the continued littering of the rest of the community of Kazo in a way that lowers their sense of commitment to the community.

However, the motivational factor of using the volunteer work as a springboard for a paid job, which was presented as highly significant by the volunteers, was not expressed homogeneously (high standard deviation) or at a high level while examining the current situation in the project.

In addition, there are several aspects of the project that affect negatively the volunteer motivation, and requires attention:

- As noted, truck and physical tools shortage which creates a sense of logistical shortage.

- Failure to convey recognition to the volunteers. In the Ugandan culture, refreshments, travel payments, and other small gratuities are considered basic courtesies in volunteering. Currently, the funding for the refreshments comes from donations or the organization's manager private money which is problematic and forces the project to have a limit to the number of volunteers. The findings show that volunteers are not satisfied by the amount of those gratuities and gave examples such as certificates of appreciation and refreshments at the end of workdays, some of which are not possible in the project due to the limited resources. Therefore, it is necessary to produce different ways of recognition for their work.
- Poor time management. It is important to remember that for volunteers, every wasted minute is worth more because it means both money they did not earn and time they did not use.

### **The sense of commitment to KICVOP as the managing organization and collaboration during teamwork is important**

As the findings of the various questionnaires show, it seems that there is a significance to the volunteer's feeling of belonging towards the organization conducting the waste management project and its employees. Also, communicating with the organization's managers and within the team as part of a collaboration process, contributes to the volunteer's implementation of work that as a result brings about the project's success. Another element that strengthens this fact is the desire of volunteers that takes place in the waste management project to take place in other KICVOP's projects.

### **The KICVOP Information System helps raise awareness about the importance of waste management and ways to implement it.**

There is an understanding among the general population about the meaning of correct waste management, and an increased understanding among the project's volunteers and individuals exposed to the KICVOP waste management publicity.

Volunteers understand the importance of proper waste management for maintaining public health.

Among the general population, it seems that:

- There is a high level of awareness regarding waste management and the link between it to health and morbidity, with a higher and more homogeneous level of awareness among people exposed to the KICVOP information system. The organization's information system successfully transcends key issues in the subject. The residents understand the main points of the information and the information reinforces their understanding of the importance of

proper waste management as well as the means to implement proper waste management, such as waste reduction, proper waste removal ext.

- The content of the waste management publicity is relevant and tailored to the target audience. The population in the questionnaire testified that the information about ways of implementing proper waste management on an individual and daily basis helps them to implement it in their daily life.

**There is an initial implementation of waste management processes among the population in Kazo, and a reduction in the morbidity level has been observed among the evaluation target audience.**

People exposed to the KICVOP information system indicated less infectious diseases related morbidity on both the individual level and the general population around them.

- The population of Kazo manages to implement proper waste management at home and work.
- There has been a reduction in the amount of street- waste in Kazo in a comparative view over the past year.
- However, a question arises as to why there is no difference in the level of comprehension about proper implementation between participants who were exposed to information and those who were not. It might be that those who have not yet been exposed to the KICVOP's publicity have a less complex idea of the meaning of proper waste management and therefore indicate themselves as performing it at a high level.

**Implementing proper waste management processes among Kazo population requires improvement, especially in the matter of waste reduction**

- The level of awareness of waste management is characterized by high variance among different individuals in the population. Therefore, it is necessary, alongside the improvement of logistical conditions, to continue with the publicity regarding waste sorting, waste disposal, waste reduction, and recycling.
- Among the various elements of proper waste management, there is less implementation of the waste reduction element among the general population. Since KICVOP's publicity refers to the subject of waste reduction, and according to qualitative findings, there is a good probability that the reason for the low level of waste reduction implementation is the lack of understanding of the meaning of waste reduction by the volunteers and as a result, by the general public exposed to the publicity.

- The findings of the questionnaires show that there are no clear rules regarding waste management as well as no enforcement, and also that there is a perception among the general population that creating and enforcing a clear set of rules will help to ensure proper waste management among the general population. Currently, there are no governmental waste management bylaws in Kazo as opposed to Kampala, several council cells create their own laws but they struggle to enforce them because people know they are not bound by law and will not be valid in court. A factor that gives the councils confidence for enforcement is KICVOP's support and the option of the waste management volunteers' support in court. It is important to mention that there are laws regarding public health and waste disposal which many council cells are not aware of, and enhancement of the knowledge of them will help the council cells to enforce their laws.

## **6. Recommendations**

### **Recommendations regarding project management:**

1. **Building an intermediate administrative layer.** The volunteers chosen for this position will need to have previous training or guidance. This action will have several positive impacts:
  - a. Creating a way of keeping contact with volunteers in a large area of work which will improve work distribution and volunteer time usage.
  - b. Keeping a sense of connection between them and the main organization. This impact is especially important regarding a scale-up adjustment and the findings of the importance of connection to the organization for volunteer motivation.
  - c. Creating another level of possible development, experience, and skill acquiring for volunteers, which can help them acquire a paid job.
2. **Creating a connection with the community environment leaders.** Each council cell is supposed to have a person in that position by law. There is a need to first find that this law is implemented in all council cells and secondly strive for cooperation that will help both guiding the Intermediate managers and enforcing the public health laws in the area.
3. **Acquiring physical tools according to the number of volunteers in each council cell.** According to project regulations, the physical tools are not transferred between different council cells. Establishing tools distribution according to the number of volunteers will help both allocating

the tools properly and more effectively to enhance the work achievements, as well as can be a motivating factor for local council cells to reach out and recruit more volunteers.

4. **Teaching the volunteers working in KICVOP's waste management publicity different aspects of waste reduction.** By teaching the volunteers the broad meaning of waste reduction and giving them examples from the day to day life they will understand better the subject and will be able to pass it better to the public.

5. **Creating a Garbage collection system within KICVOP's waste management project.**

Three possible options to face the lack of garbage trucks and disposing sites:

- a. **Creating cooperation between KICVOP's waste management project and a private waste collection company.** By that, the company will offer the residents of the waste management project a discount for disposing of their waste, which will encourage them to pay for the service by themselves. Also, it will have an economic worth to the company that will increase its customer's array. This option if possible will be the easiest for it requires KICVOP to simply be the connective body and not to supply the service itself.
  - b. **Acquiring or renting a garbage truck and paying a yearly fee to the government to dispose of the trash in Kazo.** This option, if given the funds, will have significant advantages such as providing the volunteers and other people from the area job options, and allowing KICVOP flexibility and ability to dispose of the collected waste at appropriate times.
  - c. **Renting temporary small disposing sites inside Kazo.** This option will help to prevent the waste from redistributing in the streets and will decrease the expenses directed towards garbage trucks by enabling reducing its work to a single day. Although, it depends on a higher amount of funding and carries the risk of having waste thrown there by non-authorized people and exceeding over the capacity of the temporary disposing site. It is advised to look for a body that agrees to give its property for the cause, in exchange for cleaning services, after deeper assimilation of the personal responsibility for waste management in Kazo.
6. **Additional investigation of the positions that are suffering from a lack of volunteers to decrease the level of burden on the volunteers.**

### Recommendations regarding the volunteer need for appreciation:

7. **Offering small refreshments, other cheap rewards, or a restaurant discount.** It is shown that without any type of reward the volunteers feel unappreciated and are often late or absent from volunteering days. It is recommended to explore the option of offering a discount for lunch in a local restaurant instead of directly supplying the refreshments. Although this attempt has been unsuccessful before in different conditions, it is advised to try it again due to its high ability to support local businesses while saving the project's resources. There is a possibility that making this adjustment simultaneously to other recommendations in the subject, in a reality in which the volunteers are expecting only small refreshments and not a full meal will bring to its success.
8. **Constant work on changing the mindset about the value of volunteering.** It is not possible in this time to stop supplying refreshments completely due to cultural factors, but there is a need to work on changing the volunteer's mindset of the value they get from their volunteering. There is a need to show the volunteers they are not only helping KICVOP by volunteering, but they are helping themselves to have a more sanitary and healthy life. To do that, the training and the day-to-day work should address the element of personal responsibility for the environmental status and the need to initiate actions in the subject. Also, there is a need to emphasize the value of skill, knowledge, and experience acquiring aspects that will help the volunteers find a paid job. Addressing the topic of the lack of refreshments during the training program is a possible way of action. It may screen the volunteers who will not work properly without a physical benefit but can also have the effect of highly diluting the number of volunteers and therefore needs to be carefully inspected.
9. **Conducting non-obligatory hourly lectures by volunteer experts from the area.** This will add to the set of knowledge and skills the volunteers will get from the volunteering job. It will constitute both as a way to develop the volunteers for their work in the project and a non-financial way of showing gratitude and appreciation of their work by contributing to their personal skills. Conducting the lectures on existing volunteering days will spare the need for funding for refreshments other than the usual ones that are given.
10. **Choosing a "volunteer of the month" and writing his name in KICVOP's office.** This may enhance the sense of connectivity to the organization which has been shown as important to volunteer motivation. Volunteer of the month can be chosen according to the number of positive medals received or other work games as specified below.

11. **Offering the option to get a formal recommendation letter for volunteers after reaching seniority of six months.** By declaring in the training program about this option KICVOP will contribute to both volunteer retention and volunteer's ability to find a paid job, which has been found as an important motivational factor for volunteering.

**Recommendations regarding waste management rules and regulations:**

12. **Exposure of the local councils to the public health regulations by a formal document.** This action will give the local councils the confidence to enforce their laws. Also recommended to follow the level of understanding in the subject by a relevant council official, and if necessary create training in the matter.
13. **Formally offering the local councils an escort of a waste management volunteer to court.** This may enhance the council's level of confidence to enforce the laws at the start. This will be offered under the condition of paying the volunteer's travel fees.
14. **Distribution of waste management rules and awareness banners in the area of work.**
15. **Creating a volunteer enforcement system.** Allocating volunteers to enforce proper waste management in the streets, with warning notes. This must be conducted in cooperation with the local environment leader who oversees enforcing public health law.

**General recommendations:**

16. **Enhancing elements such as enjoyment and community feeling by creating work games.** The element of enjoyment was noticed as an important motivating factor for volunteering. By adding games to day-to-day work, it is possible to make the work more enjoyable and satisfying. Games such as waste picking competitions or group competition for completing tasks may contribute to the aspects of developing challenges, teamwork, and community feeling as well as enjoyment.
17. **Addressing the lack of garbage trucks and tools in the volunteer training program and day-to-day work.** To reduce volunteer frustration of the subject, there is a need to "put the information on the table" and talk about it openly and in advance with the volunteers. It is also recommended to address the subject humorously through games at work, such as giving medal like "the trash" to the person who is always the first to reach everywhere, or "the truck" to the volunteer who is often late.
18. **Conducting a community cleaning day.** This will enable to clean a large area in a small amount of time and may help with volunteer motivation regarding the aspect of community sense of

commitment. Although it has important benefits, it depends on the ability to obtain large financial resources and access to more than one garbage truck to completely clear the area from waste and prevent its redistribution.

19. **Cooperating with trash bins suppliers during KICVOP's publicity.** The suppliers can join the publicity and offer a discount. This solution will contribute to the suppliers by enlarging their customer pool and will enable people with low means to purchase the bins at a reduced price. By purchasing a garbage bin, the people will feel more responsibility to maintain their ability to collect waste, as opposed to collecting waste in temporary bags.

#### Recommendations regarding a scale-up:

Many of the recommendations mentioned above are directed towards a scale-up as well as to improve the current project. Recommendation no. 1 is directed solely towards the scale-up, and the following recommendations were mentioned above but are especially significant for a scale-up process.

1. **Advocating for expanding Kampala's sanitary bylaws, and police enforcement to the area of Nansana.** This will help to reduce the waste in the street, as well as preserving the area clean after the volunteer work.
2. **Building an Intermediate administrative Layer.** As mentioned above, it will contribute to volunteer retention and more efficient work in the field.
3. **Creating a connection with the community environment leaders.** This will more efficient work in the field.
4. **Combining work with games.** This will contribute to retaining a community feeling in a larger scale of employees.
5. **All recommendations regarding the volunteer need for appreciation.** These recommendations will contribute to retaining volunteers in the waste management project and their connection to KICVOP as the managing organization, also in a large scale of volunteers in different local council cells.

**In conclusion,** the process of examining various aspects of the project revealed many tangent topics that reflect on one another. It exposed new information about the project and its beneficiaries, as well as several topics requiring improvement. It is clear that the current project features have many virtues, and that it has a strong base for expansion. Addressing the identified topics for improvement will

contribute to establish a more efficient and successful project, and will set the ground for a regional or even a national scale-up of the local initiative. We also wish to express our positive impression by KICVOP's ability to conduct a logistically and perceptually complex project under difficult conditions. We believe this project is important to its staff as well as to the general community, and we hope it will continue to progress and have a significant impact on the general population.

## Appendix

### Appendix 1- Information gathering instructions

Three types of questionnaires will be conducted in different populations, as detailed below.

#### **1. Community Questionnaire**

Amount of questionnaires: 50

Target population:

- Young women who are in charge of a household- 15
- Sellers in markets- 15
- General population- 20
- Half of each category should have acquaintance with KICVOP's waste management publicity, and the other half to have **no** prior acquaintance with KICVOP's waste management publicity.
- The target population should be from different districts of Kazo.

#### **2. Waste (Garbage) Management project in Kazo Questionnaire**

Amount of questionnaires: 25

Target population:

- KICVOP's volunteers/ workers that are part of the waste management project- 15 (all of them)
- Regular project volunteers that are not part of KICVOP- 10. They can be the same people that answered the Volunteer questionnaire.
- The target population should be from different districts of Kazo. (possible up to 2 people from the same household)

#### **3. Volunteer questionnaire**

Amount of questionnaires: 25

Target population:

- Regular volunteers in the project that are not KICVOP'S volunteers- at least 15. 10 of them can be the same people that answer the Waste (Garbage) Management project in Kazo Questionnaire.
- Temporary volunteers- at least 5

- The target population should be from different districts of Kazo, at least 3 people from each district cell (possible up to 2 people from the same household)