

Contribution of community groups in solid waste management:

The case of KIUM group in Morogoro, Municipal



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August, 2016*

1.0 BACKGROUND

The growth of cities in developing countries including Tanzania has increased the challenge of solid waste management in urban areas due to increasing population and uncontrolled urbanization which requires service delivery including solid waste collection. Solid waste management is one of the key duties of all urban authorities in Tanzania. However, the rapid urban growth, scarcity of funds, and the reluctance of the urban dwellers to pay for the services have increased the challenge. While cities and towns are increasingly producing more solid wastes, there has been lack of effective mechanisms put in place to tackle the challenge. This is a concern which requires different stakeholders lead by local authorities to work on together.

Low income communities are the key stakeholders in solid waste management yet they are economically, socially and technologically disadvantaged. There is a great potential if they are empowered in solid waste management. This will enable them to participate in solid waste management, and creating income generating opportunities. One of the major challenges experienced in solid waste collection by community groups has been the high operation costs, in particular the transportation cost to dump sites, which in many cases are located outside of the city. Lack of capacity, especially to transport solid waste to disposal sites among other challenges, has denied many community groups' access to work on solid waste collection, despite their potential in contributing to the reduction of the challenge.

This learning brief aims to share the experience and provide key lessons learned from a community group involved in solid waste collection and recycling using the case study of KIUM (Kikundi cha Usafi wa Mazingira) group in Morogoro Municipal. This will provide lessons to other community groups implementing similar work, Local Authorities and other stakeholders involved in solid waste collection and environment conservation. It also shares the success and challenges faced by community groups working on solid waste collection.



Members of KIUM solid waste group

2.0 SOLID WASTE COLLECTION AND RECYCLING AS DEMONSTRATED BY COMMUNITY GROUP (KIUM).

KIUM (Kikundi cha usafi na mazingira) is one of the community solid waste collection group supported by CCI. The group was established in 2005 with 22 members. Currently the group has 45 members of whom 15 are working on solid waste collection and 30 are working on recycling. KIUM group got a municipal tender on solid waste collection since 2005 through Ward committee of Mji Mkuu ward. The ward is located on the central business area of Morogoro Municipal town and it has seven settlements. It has a population of more than 4,600 (National Census 2012). The group has worked on solid waste collection for more than nine years, and the contracts have been renewed annually. The group has managed to work this long because of its good work which has positioned the group to qualify for tenders, and the impressive work the group has shown to the local leaders.

2.1 SOLID WASTE COLLECTION WORK

The group collects solid wastes from households and business premises. The fee varies from 5,000Tshs to 20,000Tshs per month for businesses depending on size, and 3,000Tshs for households per month. The cost of 3,000Tshs is low compared to the fee set by municipality, which is 6,000Tshs per household. This is because of community member complaints that they could not afford to pay 6,000Tshs per month. Through discussion with community and local leaders, the group had to lower the cost from 6,000Tshs to the current 3,000Tshs for households per month. This affected the group operation cost as not much profit was being made. The group was collecting between 200,000Tshs to 600,000Tshs per month. The municipality was supporting the group by providing a truck to take the garbage to the dump site from the collection point, however the municipality could not effectively collect the garbage on time because of the limited trucks. This led the group to think of independently transporting the solid waste through increasing its fees from households to increase the group revenue.

In addition, the group thought of doing recycling as a mechanism for getting more money out of the recycled materials and reducing the quantity of garbage transported to the dump site. In this way they were able to reduce the cost of transporting the garbage and gain an income out of the recycling works.

2.2 LINKING SOLID WASTE COLLECTION WITH RECYCLING

In 2011 the group began the recycling work. They started with looking for land where sorting and recycling work could take place. The group consulted Mji Mkuu ward authorities for accessing land for recycling. Their request was accepted and a space of land owned by the ward authority was given to the group to do the work while the group is establishing itself to purchase its own land. This group is still using the same space until now.

The solid waste is collected from households to the recycling centre where they are doing the compositing and sorting things like bottles (glass and plastic), tins, and other recyclable equipments. Some recyclable materials are used to make some products such as pillows and mattresses made of plastic paper bags, briquettes, crushing of plastic bottles and other products. The group has also a tree nursery in which they use the compost fertilizer to grow tree plants and selling to different customers. The production of

recyclable products is done in small scale where they are depending mainly on local customers. There is a great potential of expanding their market outside of Morogoro and in other countries.

2.3 PRODUCTIVITY:

Lack of access of the machines and labour power for doing both solid waste collection and recycling was a big challenge. With only 15 members the group could not do both solid waste collection and recycling using the same number of people. The group had to think of a mechanism to increase the speed of the recycling and collecting solid waste. This required additional labour and purchasing of the crushing machine for plastic bottles which have a good market of local industries. The group purchased a crushing machine through a loan from a Chinese company and pay the loan of 12,000,000Tshs in a year. This was in September 2015, and they had already finished paying off the loan. The machine has helped in crushing the bottles which have good local market.

In addition, the group added labour power of 30 people who are working only on recycling while the other 15 are working on solid waste collection. This means that the group has employed 45 people in total.

2.4 INCOME GENERATION:

The group has a total income of 4,000,000Tshs per month. This is from both solid waste collection and recycling. The purchasing of the crushing machine for plastic bottles has made the work easier and it has increase the income of the group from 1,500,000Tshs in a month to 4,000,000Tshs from both solid waste collection and recycling. With the availability of the machines and the additional labour power on recycling, the group is likely to increase the monthly income of 4,000,000Tshs in a month. The group is getting a profit ranging from 300,000Tshs to 1,000,000Tshs in a month. The profit differs from month to month depending on what they have recycled and sold within that month.

2.5 THE MARKET:

Currently the market for their products is local community members who are buying things like fertilizer, pillows and mattresses made of plastic bags, which have a big market in villages. The briquettes are also sold to local people for cooking and industries, particularly those located in Dar es Salaam, are purchasing crushed bottles. The group bought 3 acres of land where soon they are planning to construct a small light industry for producing recycled materials. The future plan is to become a big entrepreneur in production of recycled products and supply them locally and internationally. Currently

they have explored a good market of crushed bottles in Nairobi, Kenya though they haven't started exporting. This is because the production is still low though the plans are underway to increase their production



Sorting and composting of solid waste by KIUM group



CCI SUPPORT TO KIUM GROUP

CCI supported this group in capacity building by providing training on hygiene and project management. This has increased their awareness on how the group will execute its work. The exchange visit was a part of the training where the group has been exposed to other groups to learn more and be able to strengthen each other. The exchange visits have been done in Dodoma and Dar es Salaam as well. Through this capacity building, an additional solid waste group was established in Morogoro through the support of KIUM group which has been a mentor to the other group.

In addition, CCI provided equipments for solid waste collection with a value of 800,000Tshs. The equipment provided were wheel barrows, boots, masks, gloves, brooms and other cleanliness equipments. CCI has supported the group since 2014. The future support includes linking the group with potential clients of the produced products, capacity building of the group, and fundraising for production equipments such as machines.



3.0 ACHIEVEMENTS AND CHALLENGES

3.1 Achievements of the group

- Building good reputation and recognition to the local leaders and at the municipal level.
 - Providing employment opportunities to 45 members.
- Access of income which has enabled some of the members to construct houses, take children to school, pay rent etc.
- The group has its own truck for collecting solid waste purchased from the income generated from their business.
- Investment opportunity in which a group has purchased 8 acres of land for investment and group members to be able to construct their own houses.
- Transferring knowledge and skills to other local groups within and outside of Morogoro. A group has received many visitors coming to learn from them.
- Initiating a recycling centre which has added value to the business of solid waste collection.

3.2 Challenges

- Lack of knowledge and skills on the work especially at the beginning it was difficult as the group was among the first groups to work on solid waste collection with limited knowledge and experience.
- Reluctant of some community members to pay for Municipal allocated fee of 6,000Tshs per households instead they are paying 3,000Tshs which has a consequence in operation costs
- Political interference; some local leaders are not providing enough support in mobilization of fee payment and awareness creation.
- Abuses by fellow community members who regard solid waste collection as low status job.
- Lack of knowledge and containers for solid waste sorting at the household's level adds more work to the group to sorting at the collection point for recycling.

4.0 HOW THE GROUP HAS MANAGED TO SUSTAIN ITSELF?

4.1 Strong and dedicated management team; A group has a strong management team with Chairperson, secretary, treasury who are very dedicated. The chairperson is a founder of the group who has been very useful in shaping the group. At the beginning the management team was not willing to work. Everyone regarded him/her self superior than the other. This led to some members leaving the group as some people felt that they were working hard compared to others. A decision was made that all group members must participate in the work despite their leadership status. This helped to bring unity within the group.

4.2 Transparency has enhanced accountability; It has enabled the group to unite and work together. At the beginning there was lack of transparency especially in finance, which led to conflict among the group members. The leadership was changed and a few members who were not faithful left the group. Those who remained had to make sure that they do not repeat the same mistake by ensuring that things are more open to members, and each member should be informed on anything related to their business including financial issues. The weekly and monthly meetings and audits allow members to be informed. This has helped to bring the sense of belonging, and ownership and enhances the accountability.

4.3 Linking solid waste collection and recycling; Linking solid waste collection with recycling has added value to the business by getting more income from recycling and reducing the cost they would have incurred to transport solid waste to the disposal site. The group consulted Mji Mkuu ward office for access to land for recycling which was provided. The solid waste is collected at the recycling centre located close to the ward office, where they are doing the composting and sorting items such as bottles (glass and plastic), tins, and other recyclable equipment, from which they are able to produce things like pillows and mattresses made of plastic bags and can resell the bottles. The group has also a tree nursery in which they use the decomposed fertilizer to grow tree plants and sell to different customers.

4.4 Capacity building to members of the group: The group had the opportunity to undertake trainings on project management, recycling and production of fertilizers through composting of solid wastes. Other support includes acquiring equipment such as pushcarts, protective gears, skip container and others. These were provided by different stakeholders including CCI. In addition, the group has conducted internal training among its members, meaning that all members know how to produce manure, how to take care of a tree nursery, how to collect solid waste from households and do sorting. This was done so that the group is not reliant on certain members to undertake work. This has helped to build the knowledge and skills but at the same time it has reduced the dependency from specific person. It has increased the effectiveness of the work.

4.5 Working closely with local leaders at the ward and mtaa level: The group has established good relationships with local leaders and the municipality, which has helped the group to get support. The support given includes provision of land for recycling, providing tenders for collecting solid waste, trainings and linking the group to different stakeholders including CCI, who has supported the training through exchange visits and equipment. The recognition of this group by local leaders and municipal officials has enabled the group to be referred and used as a learning centre for other community groups.

5.0 LESSONS LEARNED

1. Linking solid waste collection and recycling provides a more sustainable approach for community groups to continue working on solid waste collection as it offers the opportunity for additional income to a group.
2. There is a big potential in recycling which has not been well utilized. Government should support the recycling projects. This is an area which has big potential in providing employment to communities.
3. Residents can be willing to pay the collection fee if their political leaders are supporting the initiative, and the community is involved, and satisfied with the service rendered. However, this is not a one day activity; it is a process which

requires awareness creation as it involves behavioral change as well. As the process continues, changes happen and community becomes conscious on the need to clean their environments and pay for the services.

4. Community groups working on solid waste are more likely to be sustainable if they are supported in terms of skills, knowledge, and resources on their work. The knowledge supported should also include entrepreneurship skills. Sustainability is more likely to happen if the work is operated with a business mind rather than the services. However the business side should not ignore social aspects available within the community.
5. It is very important for the local government to create a link between community groups and big contractors to collaborate and work together in solid waste management. Each party has its own potentials and gaps which could be filled if there is a partnership and collaboration between the two.
6. To influence changes in solid waste management and recycling, there should be a strong political will to do so.

