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Community Based Solid Waste Managemant

IN GALLE CITY - SRI LANKA



HELP-O

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01 INTRODUCTION

Municipal Solid Waste Disposal is a major problem in Sri Lanka. Galle City is the main district in Southern province in Sri Lanka. Community solid waste management is a new concept to Galle municipal council.

Galle Municipal council and HELP-O (Human and Environment Links Progressive Organization) started the 'Community Based Solid Waste Management Project' in Galle city town area. City Net Yokohama Project Officer sponsored this Project and the Project was monitored by Mr. Masaaki Taniguchi, Project Director of CITYNET, Yokohama Project Office and Dr. Premakumara, Project officer at Institute for Global Environmental Strategies (IGES) in Japan.



GOALS

Developing well established community driven mechanism for waste free city

02 PROJECT OBJECTIVES

01 To make attitude change to make a "waste free city".

02 To organize households in Galle city on the importance of reduce, reuse, recovery & recycling in waste management.

03 To improve the partnerships for waste free city.

04 To formulate responsible teams for waste management program to continue.

03 PROJECT LOCATION

PROJECT AREA
Galle City Area
PILOT AREA
China Garden Village

Galle is the third municipal council area in Sri Lanka. The land area of the city is about 16.5km2 and it is bordered by the sea from south & southwest. This is one of the most tourist attract city & it is the only one world heritage city in Sri Lanka. It is situated within the wet zone of the country with an average rain fall between 1525-1900 mm per year. Tourism, fisheries and trade are major sources of income today & over 100,000 populations living in Galle municipal council area. Galle is a typical city in Sri Lanka faced with growing urban environmental problems



GALLE CITY
CHINA GARDEN MAP



Gramaniladhari Division - 96G China Garden

Divisional Secretariat office -
Galle four Gravets Divisional Secretariat
Families - 270
China Garden Ward is the heart of the Galle city.

This village has many challenges as,

- Land Spaces
- Road Facilities
- Population Increasing

Hence HELP-O selected this village as our Pilot project area of Community Based Solid Waste Management Project.

04 PUBLIC PRIVATE PARTNERSHIP

The collaboration of Galle GMC, HELP-O & Galle Women's Coop initiated their latest CITYNET funded; Community based Solid Waste Management Project (SWMP) with stakeholders representing leading public & private organizations. They extended their cooperation for the event and shared their views and suggestions regarding the waste issue. This partnership helped to establish a proper plan on waste management and waste recycling in Galle city.

As the cooperation institute of the project,Figure

01. Random Global Pvt. Ltd
02.Jet wing Lighthouse Hotel
03.Hemas Southern Hospital
03.Hemas Southern Hospital
04.Galle Cooperative Hospital
05. Galle city new century Lions Club



FIGURE 01

Stakeholder Meeting at Galle Municipal Council

Private Public Partnership (PPP) for Project Progress

Every human being shares a responsibility for the society they live in and also to their environment. This is the philosophy behind the private sector companies initiating CSR projects. They take responsibility for the company's effects on environmental and social wellbeing. Through this concept we build up the Private Public Partnership (PPP) for this project. This Partnership is very useful to promote this Waste Management Project in successfully.

In response to the request of HELP-O and Akmeemana centurial Lions club, Random Global Trading (Pvt.) Ltd has donated the Sound system to the Galle Municipal council. Jetwing Lighthouse Hotel and Hemas Southern hospital have given their cooperation for printing the Waste bags and leaflets. Galle Cooperative Hospital donated a Waste cart to China garden. This partnership is a very valuable chain to SWM Project. And other stakeholders are always engaged with the project.

05 AWARENESS PROGRAMS

5.1 Community Awareness Program in China Garden

Awareness Campaigns were launched as Home to Home program, Group Meeting, Community programs and campaigns. Under the Awareness programs it was hoped to promote the proper waste management and Waste free green city concept among the Galle cities and China garden communities.





5.2 Awareness Campaign for Galle city Traders




5.3 Cleaning Campaign Programs

HELP-O organized a Cleaning program for the Karapitiya Teaching Hospital area with the participation of stakeholders.




5.4 The several school awareness programs

were held in Galle town area. First Help-o selected the three schools considering different type of student. Accordingly Galle Southland Girls College, Galle Vidyaloka boy school and Kandawatta Al-Meeran Muslim School were participated to the awareness program. After the awareness meeting, the group session was started. And we did the group work and got their ideas and suggestion about waste management and clean and protect the environment. All groups selected four topics and make the article about their topic. They have done that work on their best. Those Topics are,

- Build up the Green Leaders Group from Galle city area schools.
- Prevention of dengue
- Reduce the Natural Disaster
- Awareness Program about proper waste separation for schools and communities

Finally, we assigned the Green Leaders among the group.

- Aware the students about the project and proper waste separation.
- Assigned the Green Leaders.



FIGURE 02
School Awareness Programs

06 ASSIGNED THE GREEN LEADERS

Green Leaders are our future network of the waste management project. They can continue this project as the chain to the future. Valuable thing is they are the massage providers to their home and peer groups. According to the Green leaders' assigned program we selected 55 students among the environmental and marine environment society students of three schools. Those schools are,

- Galle Southland Girls College
- Galle Vidyaloka boy school
- Kandawatta Al-Meeran Muslim School

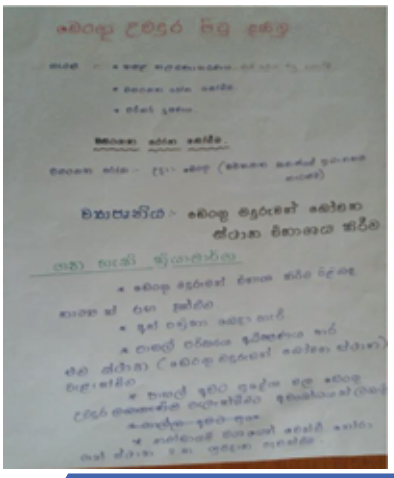
After that we did the several activities helping this School Green Leader as the school based mini project in Galle town. Those activities were,

- Home to Home Awareness program in Chaina Garden
- Tree Planting Program
- School Tree planting Program

We also assinged the community green leaders among the community leaders in China garden. All this green leaders was participated to the project activities in voluntierly







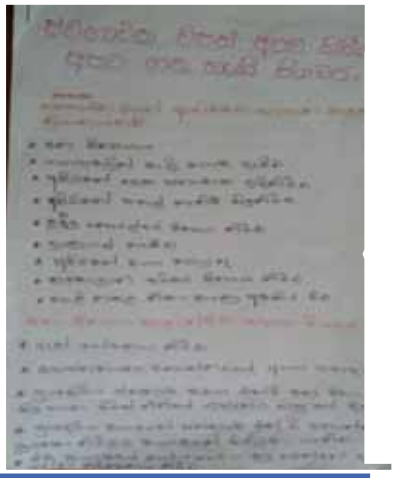


FIGURE 03
Green Leaders Activities Reports

Mini project Activities Reports created by Green Leaders of selected schools in Galle.

07 STICKERS AND LEAFLETS CAMPAIGNS



START THE WASTE SEPARATE AT HOME....

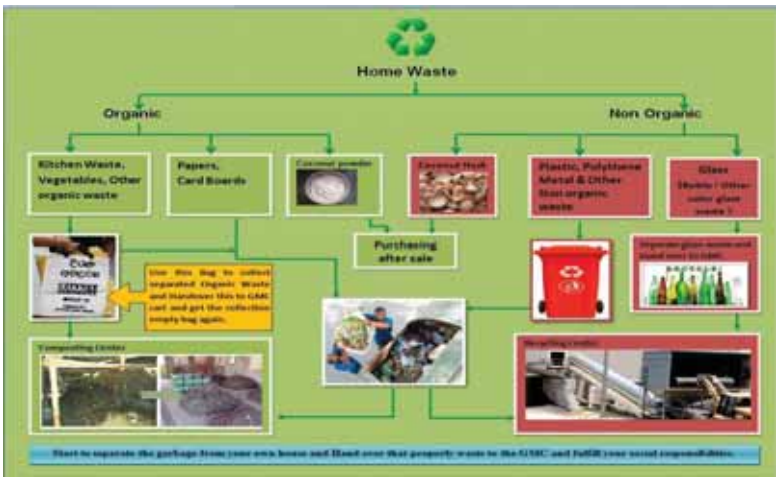
Use the waste as the resource ....



ALL TYPE OF WASTE GLASS GIVE TO GALLE MUNICIPAL COUNCIL WASTE TRUCK....

Galle Municipal Council has already exported near 90 tons wasted Glass to Dubai.....

f



USE THE COLOR BINS FOR SEPARATE THE WASTES...

Galle Municipal Council started to collect the separated waste in different days....

08 GALLE FORT CLEANING PROGRAM "Shramadhana Campaign

Aiming to Aware the Galle City people, the cleaning program and Awareness campaign were launched in the Galle City with fort area for waste management project. And also we organized two activities such as,

- An awareness campaign (Walk)
- Beach clean-up program near the sea bath area in Galle fort.

60 volunteers was particip ted those activitie Several companies got the partnership and sponsored to this program. These organizationssponsored those things. They are,

- HELP-O Eco Green Limited
- Galle municipal Council
- Lion Club of Galle Akmeemana Centennial
- Virtubil Solution (Pvt.) Limited

First was held the awareness campaign as a Walk in Galle Town and gave the waste free Green city and waste management message to the people. All participants joined with the walk and then went to the Galle fort beach. This "Sharamadana" campaign cleaned the Galle fort Beach area. Accordingly the cleanup program,

- We collected two tractors of waste plastic bottles
- We gave good message for the world, so many foreigners and Sri Lankans appreciated to us.
- Newspapers reporters were reported our activities their newspapers and they appreciated to us.


#FortLife
Beach Cleanup







09 INTRODUCING AND DISTRIBUTION OF SEPARATE WASTE COLLECTION BAGS

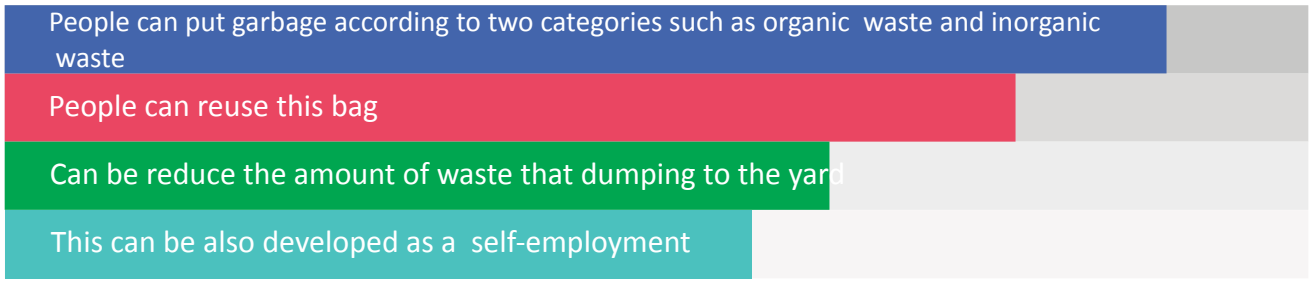
We conducted the waste separate collection system in China Garden ward in Galle. For that purpose we introduced waste separate collection bags. It was produced by Village women in China garden. There are two types of bags named Organic waste bag and non Organic waste bag. These are Rice bags and can be reused to collect waste again. It has a cover inside of the bag.



Firstly we held an awareness creation program for the people of China Garden ward. We got their views in regard to collection of empty bags for distribution. Then we found the woman who lives at China Garden for sewing the bags as a self-employed. We paid 50 rupees per bag to them. We felt it was a win-win situation of the project.



As the main activity of the project we have distributed the separate waste collection bag to community of china garden in Galle. It was building a new waste collection system. This bag itself is a waste product. If not used, it will add up to the waste in the city. Jet-wing Light House Hotel sponsored for the creation of the bag. The uses of this bag are,



PURPOSE

- ☛ntroducing the new waste collection system using reuse concept we distributed Organic Waste Separation Bag to china garden

KEY OUTCOME-

- ☛Distributed 300 organic waste collection bags for the china garden community people



10 VISIT IN CHINA GARDEN AND AWARENESS PROGRAM



Participants
- Mr. Massaki Taniguchi
- Dr. Premakumara,
- Galle Municipal officers
- Help-o Staff





All are visited in the china Garden village area and identified and researched on the life style of China garden community. And also identified waste collection hand cart root in that area. Lot of China garden people are doing the self employment like bags making, betel wrapping, Sale of iron / cardboard and working as street traders. So that, the waste problem has been reduced in few percentage of the waste quantity in the china Garden

Key Out comes -

We identified foot path use to implement for waste collection handcart.

Field visit to Dumping Sites in Galle







11 EXPORTING THE COLLECTED GLASS WASTE

Sri Lanka Municipal councils faced to a huge problem due to the absence of a properly waste management system for Glass waste. Lot of diseases and health problems has increased due to Waste glass. Hence we offered a solution to the Glass waste. Our efforts were to reduce the glass waste at Heenpandala dumping site and in daily waste collection. Since all type of glasses is getting to the Galle municipal council without selection of colors or glass type.

In three months have collected the Glass Waste and sold 95 tons (nearly 95000kgs) through Galle Municipal Council to the Random Global Private Company for exporting to foreign recycle center in Dubai according to the agreement we signed with Random Global Pvt. Ltd and GMC.



FIGURE 04
Collected Glass Waste at Heenpandala Dumping Site in Galle

12 HANDOVER CEREMONY OF THE WASTE COLLECTION HAND-CART





The Waste collection Hand-cart handover program was held on 28th of September 2017 at the China Garden ward. The commissioner of Galle Municipal council, HELP-O, committee Members of stakeholder, Galle District Housing and Livelihood Development Women's coop members and China Garden communities participated in the event. This program was organized by China Garden communities and HOL DE Women's coop members. Galle Cooperative Hospital sponsored the waste collection Hand-cart.

Made aware about how to separate the waste and operating the hand-cart on 29th of September 2017. He thanked the commissioner and stakeholders for attending the hand-cart handover program. Addressing the audience Mr. Chathura Welivitiya said that this is the first experiment of launching a new waste collection system at Galle city as a pilot village. This is a very valuable opportunity for China Garden people to clean their village and joining the SWM project.



13 HOME TO HOME AWARENESS CAMPAIGN AT CHINA GARDEN WARD

As the activity of Solid waste management project we have lunched the community awareness campaign at china garden ward in Galle. Its main purpose was "aware the china garden communities about waste separation and waste collection in properly".

This program mainly conducted by school Green leaders who assigned by SWM project. This campaign was organized as home to home awareness program and also that conducted by school green leaders.

First we gave the advice and consultation to the students about how to lead this activity to succeed. And Mr. chathura welivitiya explained that all students should be inform to the villages about,

- Waste separation type
- Waste collection dates and time
- How to handover the waste to the waste cart

Lot of villages admired this Home to Home awareness campaign. They all were involved because this awareness campaign was handled by school green leaders. They said that "It's very easy for us to reach the waste collection cart near the door".

We covered 90% area in china garden by campaign. But there have some challenges on the campaign.





14 AWARENESS PROGRAM FOR COMMUNITY ORGANIZATIONS IN GALLE

As the activity of Solid waste management project we have lunched the community awareness campaign at china garden ward in Galle. Its main purpose was "aware the china garden communities about waste separation and waste collection in properly".

This program mainly conducted by school Green leaders who assigned by SWM project. This campaign was organized as home to home awareness program and also that conducted by school green leaders.

First we gave the advice and consultation to the students about how to lead this activity to succeed. And Mr. chathura welivitiya explained that all students should be inform to the villages about,

- To Aware the environmental and community organizations about Environmental and waste management in Galle city.
- To Promoting the SWM project message to the society.

As the Awareness activity of the Solid waste management project we held the awareness program for community and environmental organization's officers about how to manage the waste problems and they should share the knowledge with grass root level communities. After the discussion we identified what are the main environmental and waste operation problems in the society and also summarized the best solutions matching with them. And we organized the next program to hold with group activities.

Civil organization can make a change, because of that they can work with grass root level in the society. And also other thing is root level people know real problem, because of that they live with real situation (They only know the real problem).

Also we invited civil organization and discussed with them in first day (10/23/2017). Then 2nd day we held the group activities following PRA tools and identified their real problem. And learned about the How to write project proposal about type of project, Project method and techniques.





FIGURE 05
NGO Awareness Program

15 MONITORING ABOUT SWM AT CHINA GARDEN WARD

Solid waste management project we have lunched as a solution to china garden village in Galle. According to that china garden communities are separating and collecting the waste in two types as degradable and non-degradable. Degradable waste is collecting on Tuesday/ Friday/Sunday per week and Non degradable waste is collecting on Saturday per week in china garden village.
Galle municipal council has collaborated the sanitation worker (Waste collection operator) for collect these waste on mentioned days. We visited the china garden October - 10/13/14/17 and November - 6/7/10/21/25 and one day per week in project duration was monitoring the china garden. Including the how to collect the waste by hand – cart? How to separate waste into homes? How to use waste collection bags?

Monitoring part is very important. Because of that people worked closely with us. They shared their feelings, thoughts and etc. And we did some home visits and followed their waste disposal system. We were conducting some group discussion. In that time we directed Galle Municipal Council waste collection workers to search people's waste collection bags.



16 FOLLOW THE STEP OF THE EVALUATION

According to the project activities we started the random survey to evaluate the progress of the solid waste management project. Therefore we selected randomly 50 community people in china garden ward as the pilot project area. These community people are based on our before research in china garden. Lot of communities has engaged with the activity. They are following the New waste management system with well. We already selected well operators and bad. Several people have some problem about waste collection time and barriers. They are,





FIGURE 06
Evaluation of the China Garden Communities

17 HOME GARDEN PROGRAM IN CHINA GARDEN

After the awareness program Help-o started the Home garden program. China Garden people didn't plant any vegetable or fruit tree due to they haven't any space to plant. Therefore we introduced the home garden plant system and also trained how to plant that seeds and plants using small buckets and pots without more spaces at their home. And we supplied,

- ❖Vegetable seeds
- ❖Vegetable plants
- ❖Fruit plants from Government agriculture farm. Then we gave this compost fertilizer, seeds and plants among the people. They interested this program, because of that they collected Plastic Bottles, Plastic Boxes, Rain Fall (water trap), and Plastic



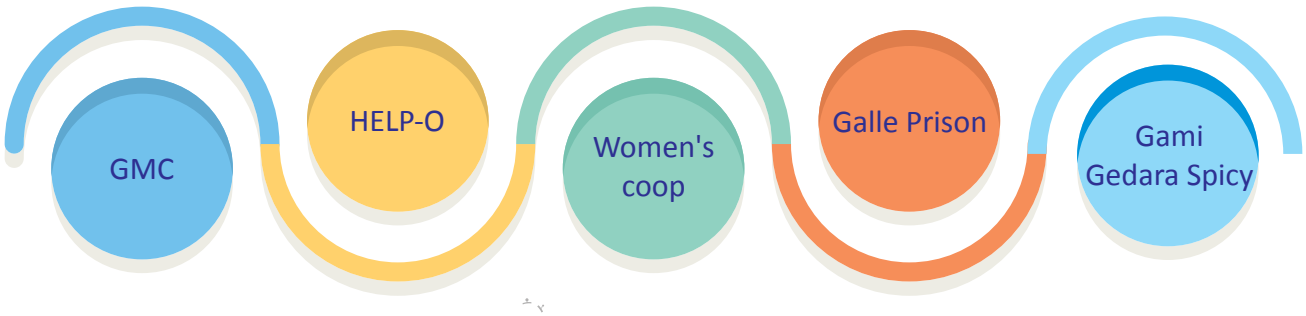
18 SCHOOL TREE PLANTING PROGRAM AND DUSTBINS DISTRIBUTION



Help-o was selected Al –Meeran School for school tree planting program because they are different religion school and there has rounded 100 Muslim students. That school is a school with less facility. And we were aimed to our project message among the Muslim people. We the dustbins, because they did not have dustbins in the school Also, seedlings were plant

19 TREE PLANTING PROGRAM & 19. AWARENESS CAMPAIGN

As the main activity of the project we launched tree planting program at Galle city near the Colombo Galle main road on 30th of January 2018. And also aware and distributed handbills to traders near the Galle city. This campaign was handling by Al- Meeran Musilum school student. For the tree planting program was participated,



We chose the following trees to match with the Galle climate and the coastal environment. Those names are Naa tree / Kottamba tree / Mudilla tree / Munamalpothu tree / Keena tree



Sri Lanka has different cultures and religions as representing different religion in Sri Lanka. So we aimed to deliver our message for Muslim religion through these students. Other thing is lots of traders (around the Galle Colombo main road) are Tamil and Muslim people. Therefore we were joined that Muslim student for these activities. It was helped to succeed this activity and our project. And other one is traders are voluntary engaged with tree planting program. Some people provided their necessary equipment and treatments for that program.



Other thing is, Galle prison was given the prisoners to help our activities. Those prisoners were pleasure about this work. They would like to change their mind and forget their life situation to joining with like this social works. There fore we gave this opportunity to Galle prisoners.



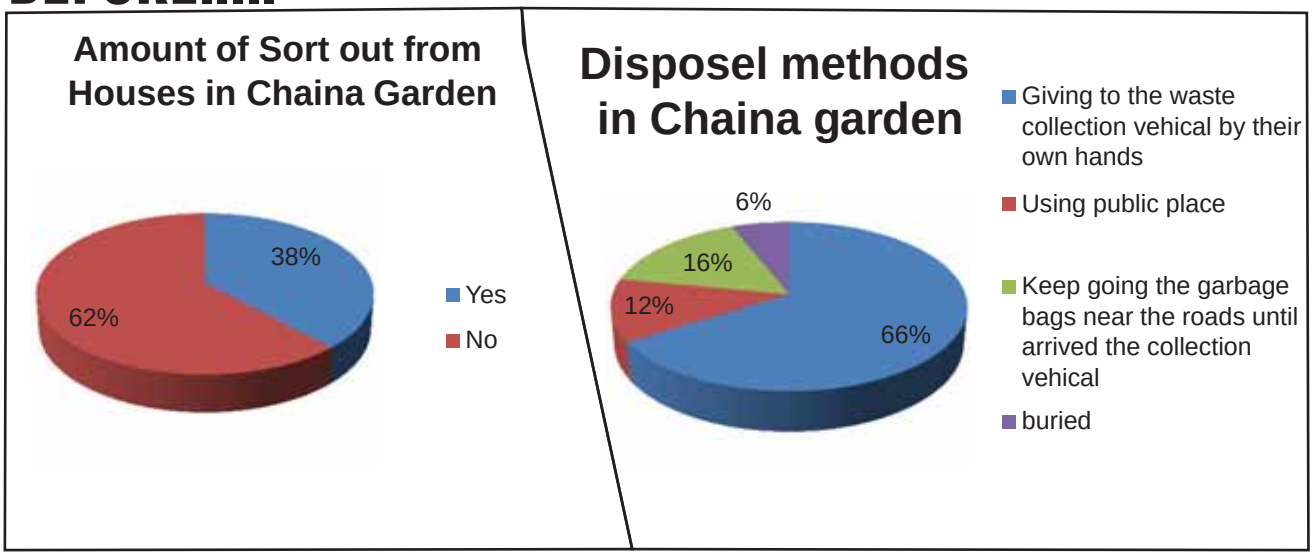




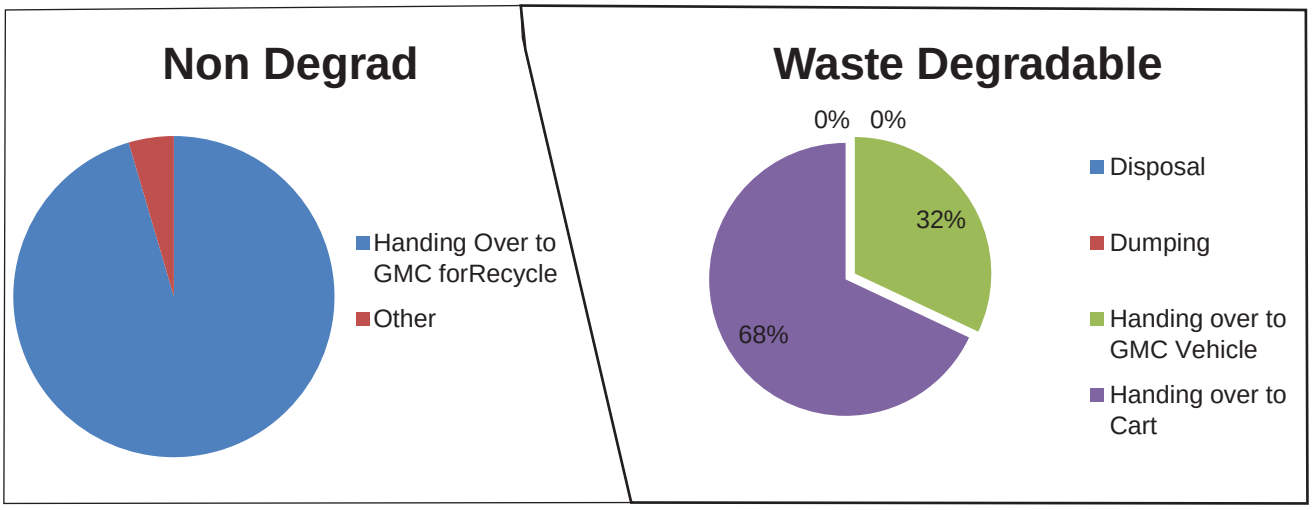


20 EVALUATION OF THE PROJECT

BEFORE.....



AFTER....



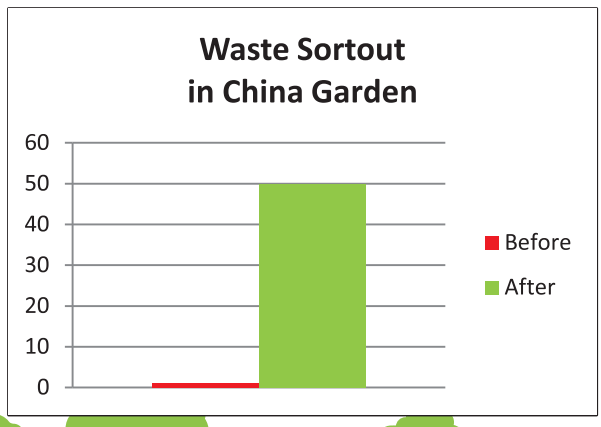




FIGURE 06

Finalized data evaluation of Base line & End line Surveys

21 SUCCESS STORIES

VHELPING HAND...

Into the village roads are very small also municipal council vehicle cannot travel on the roads. Also we gave the hand – cart. That Hand – Cart Degradable waste is collecting on Tuesday/ Friday/Sunday per week and Non degradable waste is collecting on Saturday per week. After few days that hand – cart getting the damage. Happiness reason is villagers re – made by their own self and they were not complain to us about their problem, because of that they feel this project as their project not only our project. We were able to make this successful story during our field visit. It is a one of the measurement in the project, Because of that community people being with project.



INCOME GENERATION

As the solution for the waste separation problem in china garden we introduced waste separate Bag. It was being produced by village women in China garden. There are two types of bags named Organic waste bag and non Organic waste bag. These are Rice bags and can be reused to collect waste again.
These women can be raising their income through this self-employment. As the material they used Dump rice bags for this production.





22 CHALLENGES

Transport Barriers –
Sometime Galle Municipal Council Workers were conducting strikes and they leave their work. At that time we faced big problems. It caused community people and us to feel embarrassed because of the dangers of flies and bad smell.

Communication Barriers -
It is difficult to work with government institutions, because of the procedures, processes and laws and regulations. This makes it difficult for us to keep

Time Barriers
Most of people in China Garden are self-employed. They include food producers, Labors, garment workers live in China Garden Ward. Therefore they are not waiting in the homes during daytime. This makes is difficult to arrange programs in China Garden Ward.

AT THE END OF THE PROJECT

Attitude and behavior Changes - Although the process of sampling carried out in the China Garden for two years is complete, the process continues throughout the settlement. Before starting the project there was no waste disposal method. But end of the project, 100% of the people they

Moreover, the concept of this project is already being implemented in other settlements and people are very interest in waste management

Government and private institution build up good relations with community people. Before starting the there was little relationship between community and these institutions at the end of the project, private and government institutions developed a good relationship with people.

