



DOOR STEP GARDENS PROJECT
REPORT
JULY 2014

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DOOR STEP GARDEN SUMMARY

- Give A Child Life Kenya has created almost 650 bag gardens in the Kiandutu slum near Thika.
- 185 families have received DoorStep Gardens.
- 80% of the families had children age five or under.
- 90% had incomes of 500 shillings or less a week.
- 50% had four or more children.
- **Before receiving the gardens, two-thirds of the families were eating only one or two meals a day.**
- Most of the bags were planted with spinach (Swiss chard) and kale (tree collards).
- **After about a month and a half, children started eating fresh vegetables from the bag gardens. Over half the families eat vegetables 2-5 days a week. 88% report eating more vegetables now that they have gardens.**
- **Many families share the vegetables with hungry friends and relatives.**
- **Recently families started bringing their own bags to GCLK and asking for help building gardens.**



Overview

In the fall of 2013, Give A Child Life Kenya (GCLK) launched the DoorStep Gardens project, building hundreds of bag gardens packed with fresh, leafy greens to improve the health of children and families in the Kiantutu slum in Thika, Kenya. Extremely inexpensive, the bags are made from used grain sacks filled with soil and manure with a rock drainage core. In communities where homes are packed closely together, with little open space or good earth, bag gardens can bring new life and hope.

- From June 2013 to June 2014, GCLK created almost 650 bag gardens for 185 desperately poor families.
- GCLK set up large demonstration bag gardens at the local government health center (55 bags) and at the GCLK compound, Shamba La Watoto (22 bags).

GCLK collected 92 application forms. The data indicated that:

- 87% of the bag gardeners were females.
- 80% had children age five or under.
- 48% were classified as highly vulnerable (chronically ill, HIV/AIDS, elderly, etc.)
- 90% had weekly incomes less than 500 shillings (about \$6 US).
- Two-thirds ate only one or two meals a day, with 30% eating just one meal.



The project set three as the ideal number of bags per family, but the actual numbers varied. Thirty-four percent of the families received one or two bags; 42% received three or four bags; 18% received five to nine bags, and 6% received 10-16 bags. The average number was 3.9 bags.



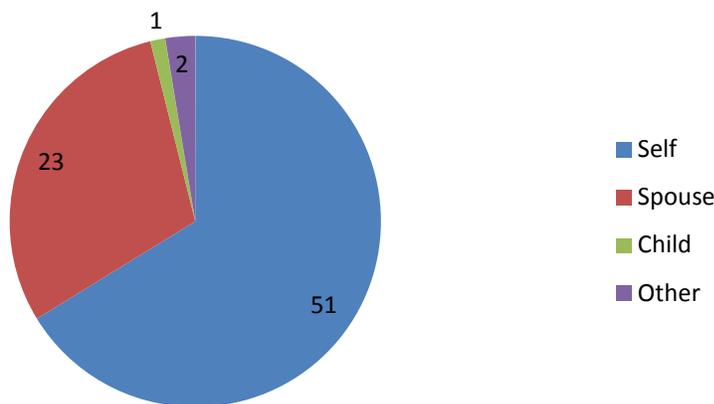


Families might receive fewer bags because they lacked even the small space that several bags require or they were uncertain of their ability to care for a bag. Some ran into difficulties with landlords who did not want bag gardens on the property.

Most of the bags were in the Molo (26%), Mosque (26%) and Mtatu (42%) areas of Kiandutu.

Sixty-six percent (n=51) of the gardeners were the family breadwinners, many of them single mothers. Thirty percent (n=23) depended upon a spouse.

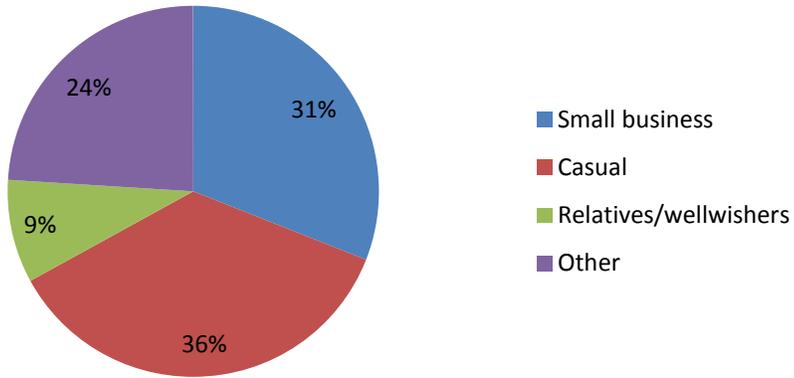
Family Wage Earner



In Kiandutu, unemployment is high and families survive on piecework. Among the gardeners, 36% were casual laborers, searching for work almost daily. Thirty-one percent were vendors, selling things as small as hard-boiled eggs. Nine percent depended on wellwishers or relatives to keep them alive. Twenty-four percent listed a variety of occupations from housewife to carpenter and plumber.

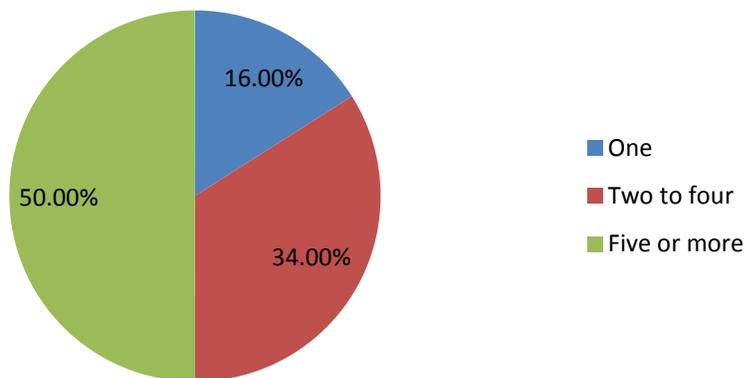


Source of Sustenance



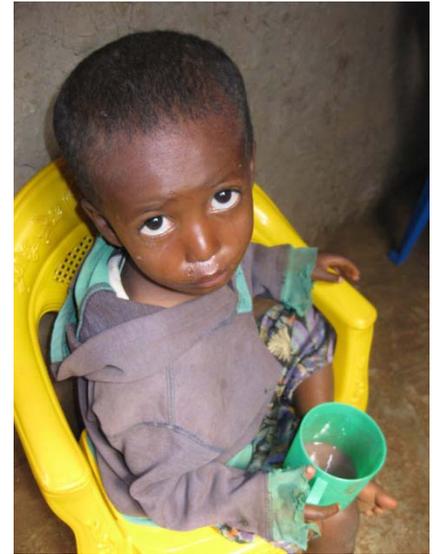
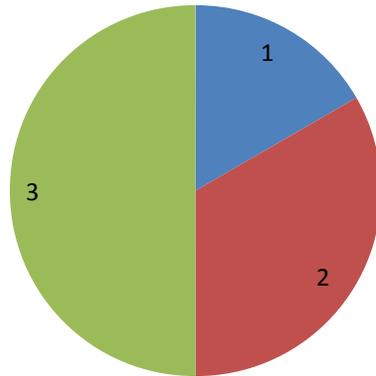
About half the families had five or more children at home.

Number of Children In Family



Half the families habitually ate only one or two meals a day.

Number of Meals Per Day

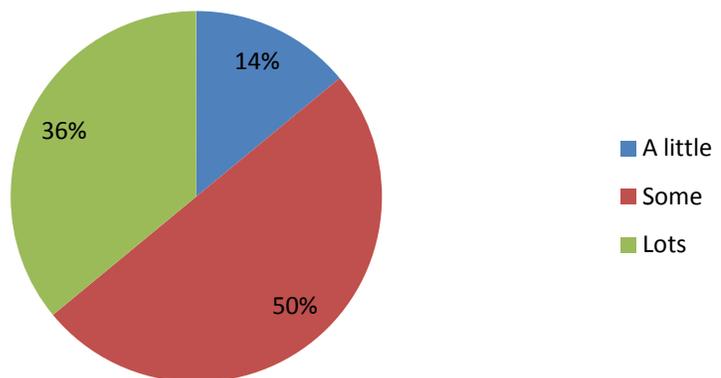


Of the 185 families who received bag gardens, 15% (n=28) were members of the GCLK group, five were village elders and 11% (n=21) were community health workers. The latter two groups were given bags because they are influential in the community and their use of the bags would encourage others to have them as well.

Almost all of the bag recipients had at least some gardening experience.



Level of Gardening Experience



Monitoring



At its onset, this project focused on setting up as many bags as possible, with some training for the gardeners. Knowing that many garden projects fail, however, an extensive monitoring system was soon put in place, with staff scheduled to visit new bag gardens every week for four weeks, then twice a month for one month, then monthly for two months. On visits, monitors assessed the gardens' conditions and provided advice, fertilizers, pesticides, etc. In November 2014, a project manager with formal training in farming took over and the focus shifted to bag maintenance.

For additional training, every month GCLK invited bag gardeners to its Garden Club to discuss problems, challenges and solutions. Staff also provided training at the meetings and the gardeners had opportunities to develop connections for mutual assistance. Incentive prizes for the best bags were awarded.

Monitoring Summary

Monitoring forms were collected on 416 visits to 104 different families between July 2013 and June 2014. More than half the bag gardeners (56%) received monitoring visits.

The monitoring period covered July 2013 through the end of June 2014, or 12 months.

Month	Total Number of Monitoring Visits
July	6
Aug	143
Sept	105
Oct	28
Jan	5
Feb	26
March	31
May	51
no date	6
Grand Total	416



On average, a DoorStep gardener received 2.2 monitoring visits. But the numbers varied widely, from no visits for 44% of the gardeners to 11 visits for three of them.

Number of Monitoring Visits	Percentage of Gardeners
0	44%
1	16%
2-3	13%
4-5	11%
6-8	10%
9-11	5%

DoorStep Garden Results

The monitoring forms indicated....

Pests

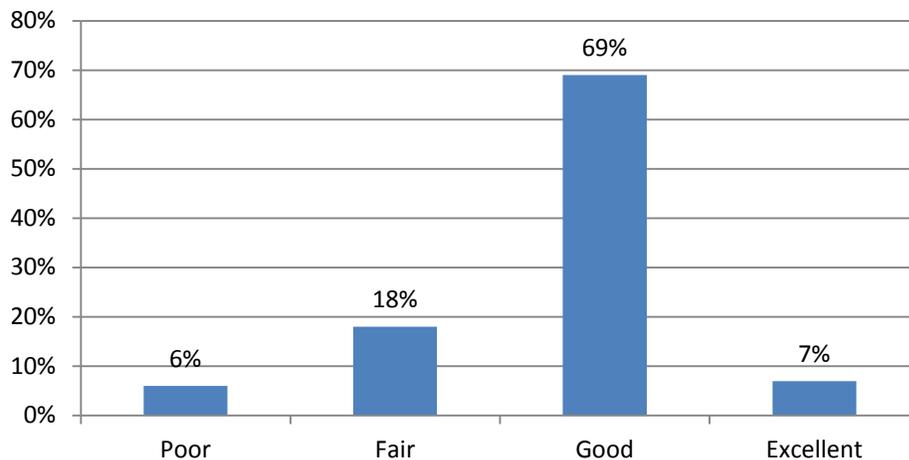
51% had problems with pests, especially aphids. While the staff regularly made a pesticide from lantana, garlic and other locally available items, pest problems escalated quickly. Gardeners didn't have time to wait for a monitor's visit in a week or so. The solutions now being implemented include better education, teaching gardeners how to make their own pesticide, and providing small bottles of pesticides for free or at subsidized prices.

Plant Health

Overall the plants were healthy, with 69% rated good and 7% as excellent.

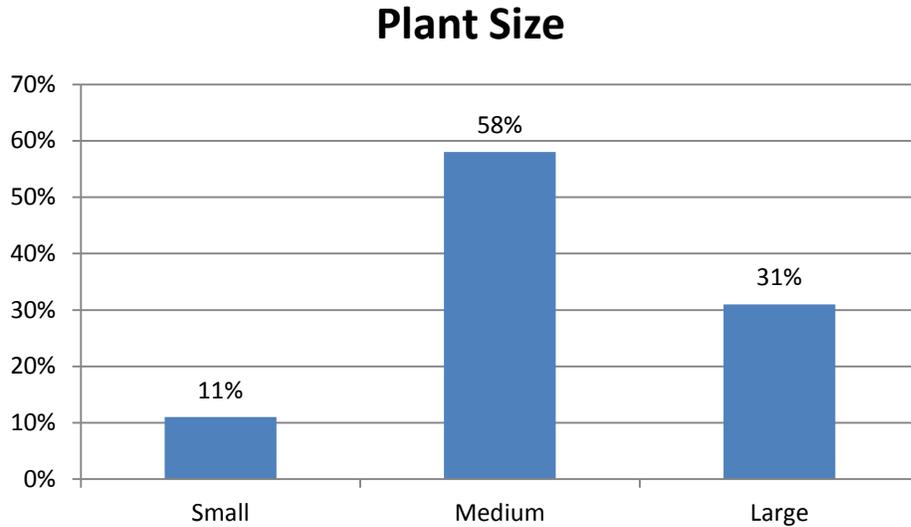


Plant Health



Plant Size

During most visits, the monitors described the plants as medium sized, which can product a substantial quantity of fresh greens.



How many days a week did families eat from the garden?

When asked how many days a week they ate food from the garden, the average response was 1.4 days a week. But **over half were eating from the garden two or more days a week**. The longer a family had the garden, the more likely they were to be eating from it. It usually took a little over a month for them to start collecting vegetables.

Eighty-eight percent reported eating more vegetables now that they had a garden.



Number of Days Per Week Eat From Garden	Percentage of Families
0	36%
1	12%
2	35%
3	12%
4	4%
5	1%
7	0%

How many families are selling their vegetables?

Of the 105 who replied, 17, or 16%, had sold vegetables from their garden. Vegetables sales supplemented their income by anything from 25 shillings (30 cents) to 150 shillings (\$1.83) a week, averaging 63 shillings (75 cents). Only one gardener (the one earning 150 shillings a week) appeared to be using her bag garden to generate regular income.



How many families are sharing vegetables?

Despite their own poverty, many families share vegetables with hungry neighbors, relatives and friends. Data from 89 individuals indicated that 25 (28%) reported having shared their produce with others in the past week.

Number of Days Last Week They Shared Food From The Garden	Percentage of Gardeners (n=89)
0	58%
1	21%
2	15%
3	6%

Among the 25 who had shared their food, more than half had done so two or more days a week:

Number of Days Last Week They Shared Food From The Garden	Percentage of Gardeners (n=25)
1	48%
2	36%
3	16%



How hungry and sick are the children in families with bag gardens?

On average, mothers reported their children's hunger level at 2.4 on a 1 to 5 scale, with 1 being not at all hungry and 5 being hungry a lot.

HUNGRY	Total		
Not at all	1	10	11%
	2	40	45%
	3	33	37%
	4	6	7%
A lot	5	0	0%
Grand Total	89		

On the same scale, the average mother rated her children's sickness at 2.1.

SICK	Total		
Not at all	1	11	4%
	2	227	79%
	3	45	16%
	4	4	1%
A lot	5	0	0%
Grand Total	239		



What are the biggest challenges for families with bag gardens?

Problem	Rating on 1-4 scale, with 4 indicating greatest need
Need fertilizer	3.4
Need pesticides	3.0
Need seedlings	2.7
Need water	2.2
Need fencing	1.9
Need harvesting info	1.8

Problems with the gardens included attacks by chickens, goats and children. To stop the chicken attacks, gardeners began throwing old mosquito nets on top of the plants. During the dry season, a number couldn't afford to buy water; GCLK allowed them to fill up at the taps in its compound. Landlords also created problems and several gardeners moved, with GCLK helping to re-locate their fully planted bags. GCLK continues to work on low or no cost methods to address these issues.

How have families' lives changed as a result of having the bag gardens?

For those living on a slim margin of survival, having free vegetables at their DoorStep saves a significant amount of money because they no longer have to buy greens. Rather than knowing how much they had saved by having the gardens, the gardeners described what they had been able to buy. One gardener used the money saved to buy a storage cabinet...another purchased supplies for her small business...another paid her older children's school fees.

Of note is that fact that starting in June, families began purchasing their own bags and asking GCLK to help them build a garden.

Also significant is that among 31 gardeners receiving the most recent survey, 15 (48%) had increased their number of bags. Only two had decreased the number.



***"The garden has made my life happier..."
a DoorStep Gardener***