Improving Mamapreneur's Salaries and Children's Lifestyles in Kidogo Centers







Kidogo Vision Statement and Problem





WORKING PARENTS IN LOW-INCOME COMMUNITIES

The market: working parents in low-income communities,

specifically Nairobi need



NEED HIGH QUALITY DAY CARE

The product: access to high quality day care is crucial to early childhood development.



KIDOGO PROVIDES PLAY BASED LEARNING, RELATIONSHIPS, NUTRITIOUS FOOD, SAFETY

Kidogo value proposition: the Kidogo Way



LIVING WAGE FOR MAMAPRENEURS

The problem: allowing mamapreneurs to have a minimum wage

while maintaining high quality care in classes of 5-12.



Overview of Solutions



\$1 Per Week Pledge to Subsidize Child care Centers With Mamapreneurs as Co-Owners

A fundraising campaign (\$1/week) to increase awareness of Kidogo, individual donations, and loyalty. Having mamapreneurs as co-owners of their centers with Kidogo will allow Kidogo to subsidize the costs of the center and better support mamapreneurs to make a living wage.



Tower Gardening for Food

Implanting a space and cost-efficient **aeroponic vertical garden** within each center to produce the necessary vegetables and fruits required for each child's nutritional needs.



The Reasons for External Revenue

With a limited economy in the slums and little available time, space, and resources, it is nearly impossible to have mamapreneur run centers be self sustaining closed businesses.



Parents Can't Pay More

Parents in low income communities already struggle making ends meet. Especially casual laborers are unable to pay more for childcare.



Mamapreneurs Can't Care for More Children

At 15 children, child care centers already have a higher child:caregiver ratio than ideal.



Rent and Utilities are Fixed Costs

There are few economically viable options to reduce the costs of rent and utilities. They are already basically minimized.



Bundled Services are Logistically Complex

Centers could additionally offer something else parents need for less than they currently spend. This would require bulk discounts which Kidogo has struggled to implement in the past.



No Shows are Frequently Due to Financial Reasons

20-30% of income is lost each month due to no shows however this lost payment is often due to parents simply not having enough money. Some money is better than none and the root cause of the problem is the larger economics of the slums.



Cutting Food Prices is Not Enough

If food prices were cut entirely, centers would barely make minimum wage, but wouldn't help home-based places. Growing small amounts of vegetables can combat malnutrition, but is not sufficient to enable mamapreneurs to make a living wage.



Mamapreneurs Have Effectively No Free Time

Mamapreneurs work from 6am-7pm+ 6 days a week and spend Sundays at church. This leaves them little free time to earn a living on the side.



\$1 Per Week Pledge

A \$1 per week (or day) fundraising campaign to increase individual donations and promote loyalty. (Although the theory is \$1/week, donations should be collected monthly, quarterly, or annually to make it economical.)

\$1 per Week Pledge

Create a \$1 per week donation option. This is feels like a small manageable donation that makes people feel that they are making a difference and encourages donor loyalty.

It all adds up

These donations may seem small and insignificant, but with only 1000 donors, Kidogo would be able to finance 52 "Mamapreneur Starter Kits". That would 1.5-2x the current number of Kidogo centers..



"Sponsor a center"

A donor feeling like they have sponsored a specific mamapreneur, child, or group of children is more likely to stay invested.

Follow up with a newsletter

Monthly updates on Kidogo's progress and ideally the specific activities happening at "the donor's" center will keep donors feeling like they are a valuable contributor to a global effort.

The Start Up Cost: a simple 30 minute addition to the donation page of your website

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Mamapreneurs as Co-owners

Mamapreneurs could act as Kidogo employees and co-owners of their childcare center to alleviate the financial burden.



Value Proposition of a Franchise

Another important aspect to the scalability and role of Kidogo in these childcare centers is the value to the mamapreneur of becoming a franchise. What benefit is she getting from getting the Kidogo brand?

Many mamapreneurs don't pay to become a franchise. If she must pay almost 3 months of her salary to renovate the center and become a franchise, what's in it for her? Does the brand name carry enough trust and significance to make it worthwhile especially if she already has a customer base?

With a fixed sized economy in the slums, there is little opportunity for mamapreneurs to make the extra ~ \$75/month they would need to meet minimum wage. Co-ownership provides a sustainable solution that would enable mamapreneurs to live healthy lifestyles and maintain their entrepreneurial spirit while preventing parents from seeing Kidogo as a donor funded NGO.

Co-ownership

Mamapreneurs, as long as they are meeting appropriate quality standards, would be Kidogo employees.

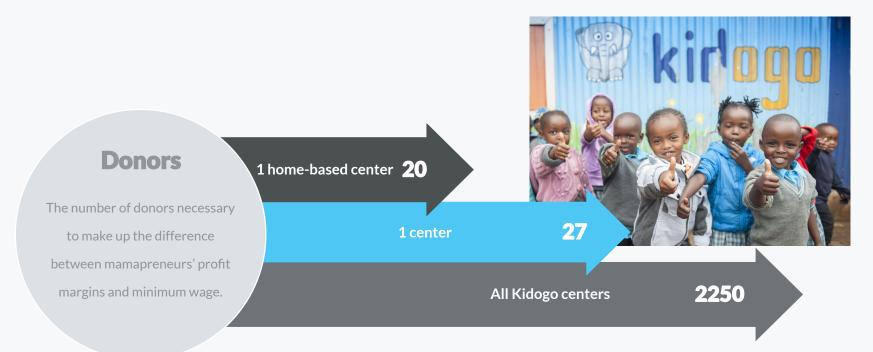
This would allow Kidogo to subsidize the costs of the center (a necessity even in US low income neighborhoods) in a way that still preserves the self sufficiency and economic solvency of the business.

Instead of being full owners of their centers, mamapreneurs would co-own it with Kidogo.



\$1 Per Week Pledge in Numbers

With this plan, Kidogo would only need 2250 donors each year to make up the difference in mamapreneurs' salary to allow them to earn minimum wage.





Case Study: The 52 Million Project

This non profit is a little under 1 year old but has already had success with \$1/week fundraising.

<u>The 52 Million Project</u> aims to bring together 1 million people to each donate \$1/week to enable non-profits to tackle global issues.

With a simple message that everyone can donate a little, they have already gotten 272 donors in 2020 alone (2 months).

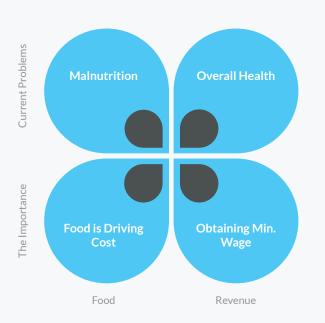
Key takeaway: make it easy and meaningful to "refer a friend"



In the past 2 months they've already raised more than enough to subsidize all Kidogo centers for 3 months.

TOWER GARDENING PROBLEMS + IMPORTANCE

Current problems include malnutrition affecting the overall health and food as a major variable expense



CURRENT PROBLEMS

MALNUTRITION

Currently, **40% of the children** in the Kidogo centers are malnourished. Malnutrition may lead serious **health effects** including stunted growth, eye problems, diabetes and heart disease.

FOOD IS A DRIVING COST

Food is one of the **greatest variable expenses** in Kidogo, A centre-based platform averages to ¢15-25 / day for each child, for around \$108 / month total costs.

WHY IT'S IMPORTANT OVERALL HEALTH

All parents involved with Kidogo have a number one priority of their child obtaining a sufficient amount of **nutrition**. A child's nutritional values determine their growth, bone and muscle strength, brain development and overall health.

OBTAINING MIN. WAGE

By lowering the food costs to exactly half, the mamapreneurs are able to increase their income to the **minimum wage** of \$150/month.



How to Address Malnutrition and High Food Costs?

TOWER GARDENING OVERVIEW

OVERVIEW

Tower gardens are vertical aeroponic growing systems meant for indoors, requiring 90% less space (3' x 3') comparto conventional gardening and 1-2 hours/week for maintenance.

COSTS FOR IMPLEMENTING

The total cost for 1 tower garden is roughly around \$525. Broken down into monthly installment payments, the cost for the tower garden is between \$45-50.

AMOUNTS

1 tower garden can last 15 children for one year, if each child receives a ½ cup of vegetables/fruits per day.

MATERIALS REQUIRED (INCLUDED)

- Seedlings (baby/large greens, herbs, flowers
- Reservoir + Tower
- Mineral plant food/Fertilizer
- pH test kit and adjusters, LED grow lights
- Germination tray, Rockwool cubes, net pots

All Costs Broken Down:

- Tower Garden + Shipping (+lights, adjusters) = \$575 / year = \$48/month
- Electricity: requires 8.34 kwH/month = \$1.75/month
- Water: recommended 40 gallons/month = \$0.70/month
- Nutrients: \$60/year = **\$5/month**
- Extra Seeds (+30) = \$45/year = \$3.75/month
 Total Expected Cost: \$54.20/month





TOWER GARDENING BENEFITS

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Variety of Foods

Tower gardens come with a variety of different vegetables and fruits to grow: kale, cabbage, broccoli, peas, cucumbers, sweet peppers, squash, tomatoes that add nutritional value for a child's diet.

Cost-Effective

Typical tower gardens growing up to 30+ different kinds of plants range from \$45-50 / month, supplying a group (15) children for a year. This is half the price for the current average food costs (\$108 / month).

Takes Minimal Space

The maximum amount of space required for a tower garden is a 3' x 3' square to grow 30+ different plants, around 10x less space required compared to regular soil-based gardening methods.

Easy to Maintain

Tower gardens require no soil and use 98% less water than traditional agriculture. Pollutants and contaminants are absent because soil is not used. This close-loop system that recycles water and nutrients also naturally resists any pesticides.

Instant Results

In these aeroponic growing systems, plants grow up to 3x faster, in as little as three weeks after transplanting for most vegetables. Year-round growing is also possible with consistent yields and grow lights.

Minimum Maintenance Efforts

The efforts required for maintaining a tower garden system are simple and minimal, including "turning," monitoring the pH level and water temperature, and trimming. The maintenance for this system takes no more than 2 hours / week.



CASE STUDY: UKULIMA TECH

Promotes urban access to nutritious and sustainable food with vertical gardening methods

HIGH EFFICIENCY

Agricultural productivity is boosted - their vertical farming and garden automation systems allow for year-round growing with minimal inputs of water, labor and land area.

SAFE AND NUTRITIONAL

Solves **2 problems prevalent** in urban food markets:

- High chemical residue on vegetables in markets
- 2. Lack in availability of different foods



Based in Nairobi and started in 2017, Ukulima Tech addresses the challenges to access affordable and fresh vegetables for families by transforming their living spaces (backyards, balconies) into gardens.

They work with the **youth and women groups** in the urban slum areas to address the food challenges present as well as create employment, additionally selling the products in the area.

SUCCESSES

Catered and helped to over **350+ families** and organizations, with 120 returning customers, providing all with sufficient amounts of high-nutritional fruits and vegetables.

RESULTS

With long-term use, this completely changed our **lifestyle, health, and well-being** for our whole family."

-Ukulima Tech returning customer

"We are assured the produce we are getting is not contaminated with any residues, and the effective system provides a lot of **convenience** to us." -Ukulima Tech client



WHY TOWER GARDENING? BENEFITS

- <u>Cost-effective</u>: around \$54.20/month = ½ the original cost for food
- <u>Space-efficient:</u> takes no more than 9ft² of space
- Range of <u>different foods</u>: 40+ options, rich with nutrients necessary for growth
- <u>Safety:</u> No chemical residues + pesticides
- Uses no soil
- <u>Grows quickly</u> 3 weeks
- <u>Resource-efficient</u> for maintenance: ultra-low power and water needed
- <u>Less waste produced</u>: water and nutrients are recycled + re-circulated

High <u>initial cost</u> for the tower and maintenance, but no additional costs after (for the remainder of the year)

COSTS

- <u>Maintenance</u> required: 1-2 hours per week
 - \circ <15 mins / day





TOWER GARDENING: TIMELINE FOR IMPLEMENTING



WEEK 1

Buying + Setting Up

A tower garden that comes with starting seeds, supplies, pumps, mineral blend nutrients, pH testing kits can be bought from <u>Tower Garden</u>, Juice Plus,

Garden Tower Project. Add seeds, water and solution to the net pots.

WEEK 1-2

Maintenance

- 1. Turn daily rotate reservoir lid
- 2. Monitor pH level weekly ideally between 5.5-6.5
- 3. Monitor temperature level weekly- between 60-85 °F
- 4. Clean and rinse pump filter weekly

WEEK 2

- 1. Clean/rinse shower cap lid weekly
- Trim periodically remove damaged foliage + cut long roots to encourage new growth
- 3. Add water when half-empty
- 4. 40 ml of mineral solution/nutrients at a time once every 2 weeks

WEEK 3 + BEYOND

Results

- Plants are fully grown after 3 weeks.
- Rich in nutrients, they provide adequate amounts of potassium, dietary fiber, vitamin A and C, and folate for every child in the center
- Repeat the process of planting seeds, watering, adding nutrients, and monitoring to produce more food.

Additional Information:

1. Training in setting up and maintenance for mamapreneurs not required, all instructions are in an included manual with the Tower Garden.





Thank You!

Dear Kidogo Team,

We want to thank you for the opportunity to work on such an important and complex problem! We're both so grateful for the time you've taken to compile resources and answer our questions.

From this project we've gained a broader understanding of global issues, specifically in Nairobi. Education is something that's really important to both of us and we loved working on a problem that has a meaningful impact. We've learned that even simple ideas have layers of complexities to consider and we've practiced breaking down a problem and analytically looking for a solution.

We hope that these recommendations can be useful to your team and are excited to see how Kidogo continues to grow and champion education in the months and years to come!

Thank you, Alice Liu, and Kiran Mak

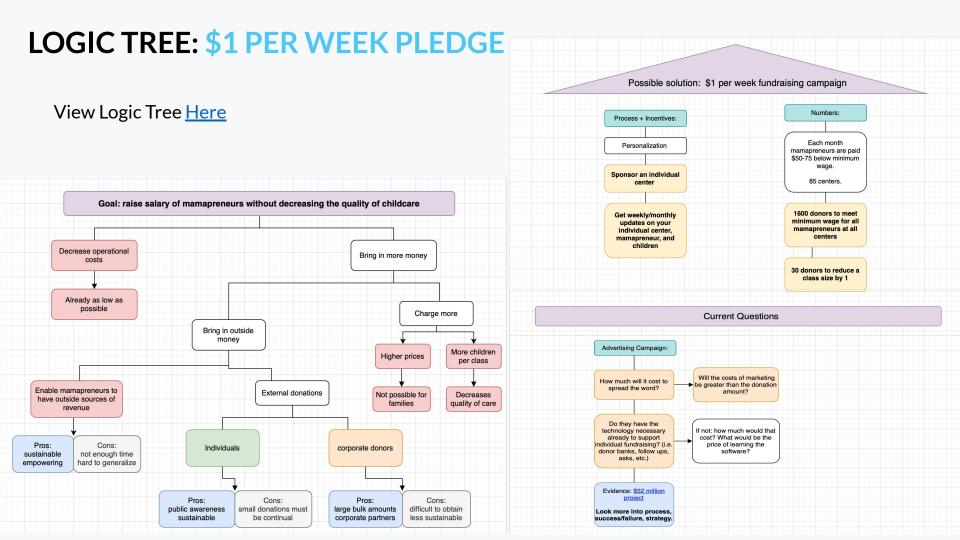


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APPENDIX



COST CALCULATIONS: TOWER GARDEN

View Cost Breakdown Here

Average Cost / Year	Average Cost / Month		
	5	\$48	
Utility requirement / month	Utility Cost in Kenya	Average Cost / Month	
8.34 kwH	1 KwH = \$0.229		\$1.75
40 gallons	1 Liter = \$0.066 = \$1.0175 (in gallons)		\$0.70
0.167 gallons	2 Gallons = \$60		\$5
3 packets	36 seeds = \$45		\$3.75
\$54.20	Sources		
\$108	Water Costs in Nairobi		
	Electricity Costs in Nairobi		
	Nutrient Costs		
	\$575 Utility requirement / month 8.34 kwH 40 gallons 0.167 gallons 3 packets	\$575Utility requirement / monthUtility Cost in Kenya8.34 kwH1 KwH = \$0.2291 Liter = \$0.066 = \$1.0175 (in40 gallonsgallons)0.167 gallons2 Gallons = \$603 packets36 seeds = \$45\$54.20Sources\$108Water Costs in NairobiElectricity Costs in Nairobi	\$575\$48Utility requirement / monthUtility Cost in KenyaAverage Cost / Month8.34 kwH1 KwH = \$0.229 1 Liter = \$0.066 = \$1.0175 (inAverage Cost / Month40 gallonsgallons)1 Liter = \$0.066 = \$1.0175 (in40 gallonsgallons)0.167 gallons0.167 gallons2 Gallons = \$603 packets36 seeds = \$45\$54.20Sources Water Costs in Nairobi Electricity Costs in Nairobi