

Growing the future is an ongoing, scalable project to establish demonstration gardens in schools throughout the North-West Region. For each school, we will work with school administrators, teachers and students to:

1. Select one teacher or school administrator who will commit to supervise the garden project for at least 3 years, and to help train their successor should they decide not to continue.
1. Create a tilled garden area fenced off from predators, with soil enriched from household ash and manure (and compost from the garden once established), and moringa trees planted strategically to provide shade, nitrogen, and compost material and to allow for drip irrigation.
2. Research and select five seeds for the first year to grow crops rich in nutrition and suitable to the soil and climate, including at least one that will act as a natural pest deterrent in the field and one that can be harvested and sprayed as a natural pesticide. At least one of the crops should be suitable for eating raw from the field (e.g. watermelon, carrots), and at least one should be capable of being stored for a season, (e.g. sweet potatoes, dried beans). The seeds selected for future gardens should include at least one but no more than two new crops each year.
3. Undertake two plantings of each suitable crop each year, the first timed for harvest a week at a time, the second timed for harvest all at the same time towards the end of the school year.
4. Plant, mulch, spray, weed, and irrigate the garden as needed.
5. Use suitable raw crops for school snacks throughout the year.
6. Have each student develop a recipe for each crop that can be cooked, and, as each is first harvested, distribute to students to take home to prepare and eat with their family and share the results with the class.
7. Collect and store seeds for the next year's garden, and distribute surplus seeds to students for home planting.
8. Host a harvest fair after the final harvest, to which the entire community will be invited and at which surplus produce will be sold. The recipes developed during the year will be printed for distribution, and samples made available for tasting. Profits beyond those needed for the next year's garden will be divided equally between CAMAAY and the school.
9. Evaluate the garden's successes and failures and research or brainstorm ways to solve identified problems; write a final report to be shared with all participating schools the following year, including recommendations on which crop(s) are not worth continuing to grow and which require specific identified actions to be successful in future years.

We will seek to recruit one international volunteer for at least six months of each school year to visit up to ten gardens weekly. These volunteers will determine which schools, if any, should be dropped from the program (due to unsuitable garden conditions or lack of school support) and connect with one or more to be added. They will meet with extension agents and other local agriculture experts, and review the previous year's reports, to finalize the garden plans for the coming year. They will also measure physical health (height and weight), mental acuity (a simple test), and overall sense of well-being (a short questionnaire) at the beginning and end of the year, for students participating in the garden project and for a control group that is not, in order to evaluate the impact of the gardens on community health.

We hope that after three years the gardens will be self-sustaining, and will generate limited ongoing revenue for CAMAAY. When a school has a sufficiently committed and knowledgeable teacher, a sufficient bank of seeds, and sufficient savings from their profits from the harvest fair to purchase new seeds and equipment when required, CAMAAY will reduce volunteer visits to once a month, and eventually to once a season, still printing and sharing their final report and conducting the health evaluation. For each school that reaches self-sufficiency, a new school will be added to the program. When more than one volunteer is available in a given year, 5 new gardens will be started provided the existing gardens are likely to achieve self-sufficiency the following year.

Budget for 2016 - 2017 gardens (same 5 schools as last year plus one; 4 of same seeds, banked, plus one new)

item	cost per garden	yr	total, existing gardens	total, new garden	grand total
material for fencing construction and repair [2 of the schools currently need fencing; 10% of initial cost is budgeted for repairs in subsequent years]		2016	*2=	*1 =	
		2017	*.1=	*.1=	
		2018	*.1=	*.1	
1 gardening manual, 20 pp (10 sheets double sided) printed [it is assumed that manuals will last an average of 2 years]		2016	* 5 =		
		2017	* 2 =	--	
		2018	* 3 =		
Inoculants and other needed soil amendments [current gardens are fertilized but need inoculants for only the prortion of the garden that will grow beans, which failed this year; 3 bags should be sufficient for all 6 gardens. The new garden may also need to purchase a bag of fertilizer. Inoculants will continue to grow in soil, and compost from the first year garden can be used for subsequent gardens.]		2016	* 3 =	*1 =	
		2017	--	--	
		2018	--	--	
Seeds [The new school should select its own seeds to plants; in subsequent years, the least successful one of the estimated 5 crops should be replaced with something new.]		2016	*.2 =	*1=	
		2017	*.2 =	*.2=	
		2018	*.2 =	*.2 =	
Equipment and supplies [see appendix for a complete list of need of per-garden requirements and inventory of what each garden has currently for estimate of total cost in 2016; replacement at a rate of 10% per year in subsequent years is assumed.]		2016			
		2017	*.1=	*.1=	
		2018	*.1=	*.1=	
Mental acuity test and overall well-being questionnaires [1 page each * 2 copies of each page (before + after) * 40 for estimated # of garden participants/school= 160 pp/school; total include one additional set for a control group]		2016	*5=	*1=	+1=
		2017	*5=	*1=	+1=
		2018	*5=	*1=	+1=
Average cost of volunteer transport to each school [weekly the first two years for 6 months, monthly the third year]		2016	*125=	*25=	
		2017	* 30=	*25=	
		2018	* 30=	* 5=	
Recipes printed [1 for each student, plus 2 selected per crop * 4 crops * 50 copies for distribution at the fair= 450 pp per school]		2016			
		2017			
		2018			
subtotal					
* 1.2 to accommodate fees and unanticipated costs= grand total					

Appendix: 2014-15 Gardens

school	year	Methods used	Equipment	Planted (failed)	for 2016
Guzang HS	'14	Compost pile started but not used, fence built but needs repair	Watering cans, buckets, gloves	okra and beet root, Carrot, green beans, tomato	2 hoes
Bambessi HS (warmer climate)	'14	Compost used, fence built, bamboo nurseries	wheel barrel, buckets, barbed wire, watering cans, gloves, ax	huckleberry, radish, carrots, cabbage, tomato	
	'15		(more?) watering cans	morrow, carrot, beans, peas, pepper, two kinds of tomato.	ok
Mendankwe PS	'14				
	'15	Mulch, Organic fertilizer purchased	Two watering cans, 2 rags, 2 shovels, 2 buckets	carrots, two types of tomato, morrow and lettuce	2 hoes
Ambo PS	'15		2 machetes, 1 hoe, 1 rag, 2 buckets, 2 watering cans.	tomato, cabbage, eggplant, carrot, radish, beans and brussel sprouts	ok
Upstation PS	'15	mulch	2 watering cans, 2 rags, 1 hoe, 2 gloves, 2 machetes, 2 buckets.	radish, morrow, carrots, tomato, beans	ok
Chomba PS	'14			Zinnia, Pepper, Tomato, Cabbage, Collard, and Spinach	
	'15	Compost pile, mulch, organic fertilizer purchased, sun screen installed	2 watering cans, 1 rag, 1 hoe, 2 pairs of gloves, 2 machetes, 2 buckets	tomato, beans , pepper, cauliflower, lettuce carrot. beet root	ok
Batibo	'15			peas, pumpkin and carrot, beans and tomato	2 hoes, 2 buckets, 2 gloves
Bome Mbengui HS	'14	Bamboo nurseries			n/a
Fudong	'14	High quality manure			n/a