

The cost of household self sufficiency: The case of SEED in Rocklands, Mitchells Plain

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Introduction

South Africa's high unemployment rate coupled with the negative effect of our apartheid history on urban development (Smith and Hanson, 2003), means that many black South Africans live in the deepest poverty in the townships around our major cities. We often think of climate change as a major threat to the survival of households in poor areas, but this is really only the case, where the people grow their own food. In urban areas price spikes such as the 72% electricity tariff increase implemented by ESKOM in 2006/07 and the 80% spike in world food prices experienced in 2008 (Verpooten et al., 2013) matter much more than climate change.

Sustainable Energy for Environment and Development (Seed) is a public benefit organisation promoting technologies that will make urban households more food and energy self sufficient in order to buffer them against market shocks. In 2012 Seed piloted two technology bundles in their Homestead Gardens Project in the Rocklands community. This study documents the experience and reports on the cost of implementation.

Community Partner



seed
www.seed.org.za

SEED is an award-winning non-profit and public benefit organization operating from Mitchells Plain on the Cape Flats. They have spent the last 12 years pioneering Outdoor Classrooms in under resourced schools across South Africa and are now working on a whole community development model that sees the integration of innovative education programs for schools, job creation programs for youth, a community food freedom movement and local community-based enterprises. Rocklands Urban Abundance Centre is an innovation hub and demonstration centre for low carbon resilient living practice.

Data collection

This was a collaborative project facilitated by the UCT Knowledge Co-op. Students of the course in Resource Economics worked alongside the staff of Seed under academic supervision to produce a research paper for their degree that also answered an important question for Seed.

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We made home visits to conduct in depth interviews with six of the Wave 1 beneficiaries of the Homestead Gardens Project (55%). Four of the households received the standard mode, one a limited ambassador model and one a full ambassador model. Our approach was in depth and descriptive. Seed provided the project budget for scrutiny.

Acknowledgements

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Results

The Homestead Gardens Project was open to everyone in the community and was widely advertised. The program regularly takes in new cohorts and supports them for a year. No prior gardening experience is required, but beneficiaries have to seven day long training course as part sweat equity contribution.

The cohort we studied started with 23 people of whom 15 completed the course. Eleven households went on to plant gardens. Between six and eight households were still actively maintaining their gardens at the time of our interviews. Some of the reasons given for dropping out of the program include problematic home circumstances, a lack of support from the rest of the household, work commitments and a lack of interest in the gardening. Because Seed empowers individuals and not groups, none of the problems of communal gardens identified by Ruysenaar (2013), such as vandalism and theft, were encountered here. Stated benefits include access to a more varied diet, pride and a sense of achievement. Active gardeners, often stay at home mothers or retirees, love spending time in their gardens, but nobody reported saving on food costs yet.

The beneficiaries went from house to house to help each other to install the gardens. Where possible planting was done in open ground, or alternatively in raise beds or containers. All gardens were fitted with a grey water system which leads bath water into the vegetable beds. Seed provided about 2m³ of compost, mulch, containers, basic gardening equipment (watering cans, spades, planting bags, shade cloth) and all the plants and seedlings needed for each garden. The organisation also paid for skilled labour to install the grey water systems, rainwater tanks, windbreaks and raised beds. Table 1 details the cost of additional Standard and Ambassador packages. The only difference between the two is that the Ambassador model includes a solar cooker, solar geyser and rain water tank.

Figure 2: Soil preparation and planting in a Homestead Garden (Photo: Seed)



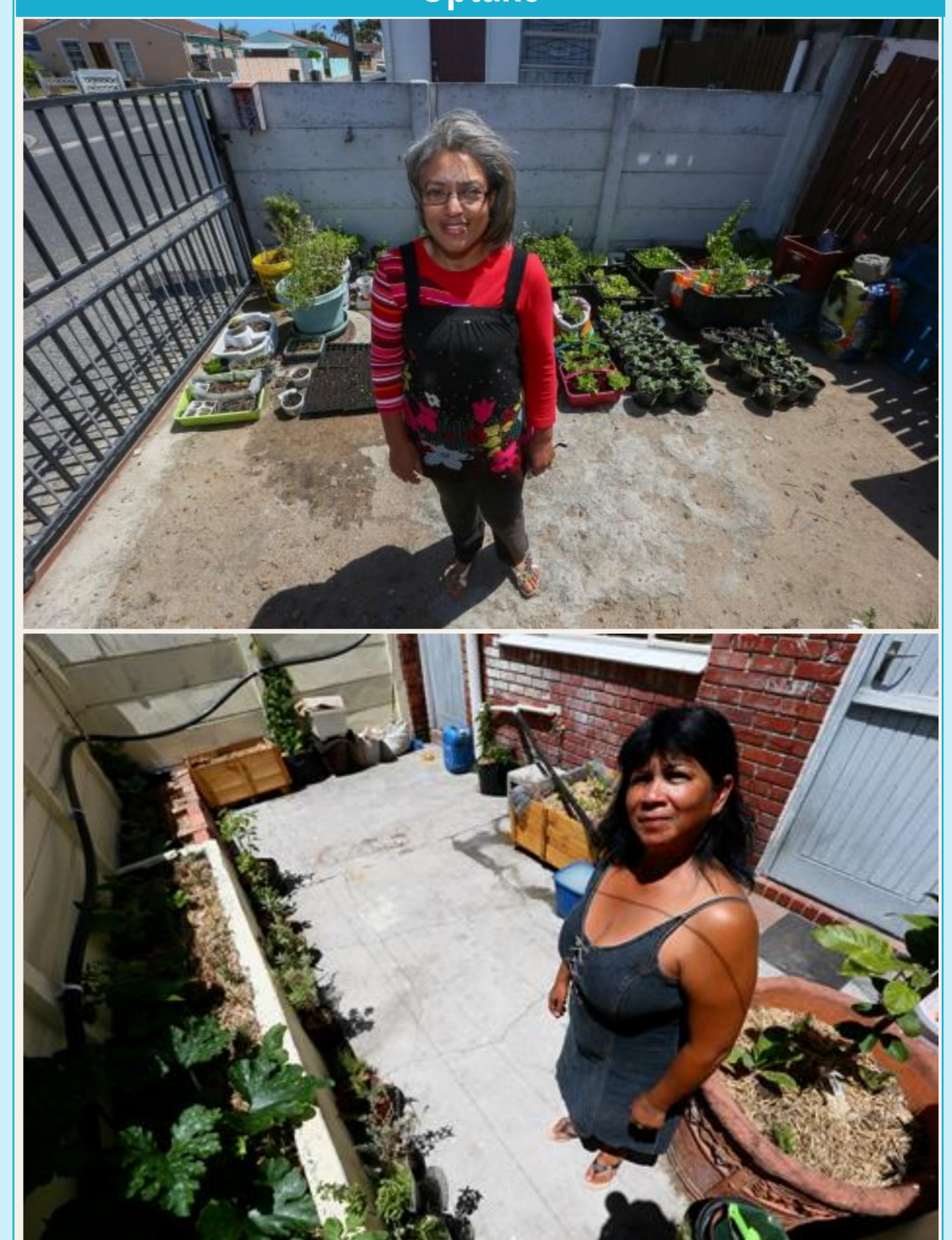
Figure 3: Low carbon house at the Urban Abundance Centre (Photo: Seed)



Table 1: Unit cost of further rollout of the project in 2013 prices

	Standard	Ambassador
RETROFITTING		
Labour	655	655
Grey water system, tanks	859	1 359
Solar cookers		2 500
Hot boxes	135	135
Solar geysers		13 892
PERMACULTURE GARDEN		
Labour	818	818
Trellising, wind breaks	200	200
Composting bins	295	295
Containers for planting	399	399
Plants	744	744
TRAINING		
Facilitation costs	1200	1200
Catering	890	890
Other	241	241
TOTAL	6 435	23 327

Figure 4: Beneficiaries in their homestead gardens (Photos: Seed)



Conclusion

Seed's Homestead Garden initiative in Rocklands Mitchells Plain makes an important contribution to South Africa's urban agriculture literature. Six months after its inception the project is successful; participants are still quite positive and teething problems are being addressed.

However, individual gardeners should perhaps be allowed to grow flowers in order to avoid the stigmatisation of food growing in the Coloured community. Tailoring the crop mix to initially include more familiar foods might increase perceived benefits of the project for participants and might thereby improve the sustainability of individual homestead gardens.

Seed has to face the trade-off between reaching many people at a low unit cost and providing a lot of costly support to a few individuals who might immediately abandon their gardens if the support fell away. More work is needed to understand which candidates are likely to be successful in the program. In addition we think that less lavish catering during the training course could help with adverse selection and that by training Seed staff to run the course, the cost of further roll out could be greatly reduced.

Given the difficulty Seed has had to procure solar geysers from government retrofitting programmes, we feel that the Standard model is probably the best way forward at least in the short run. Retrofitting should be in a separate programme. Further investigation is needed to determine whether, and if so what size, rainwater tank would make a meaningful contribution to the water needs of the typical garden. If such a tank could be procured at less than R1 000 each, it should be considered for inclusion in the Standard package.

References

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