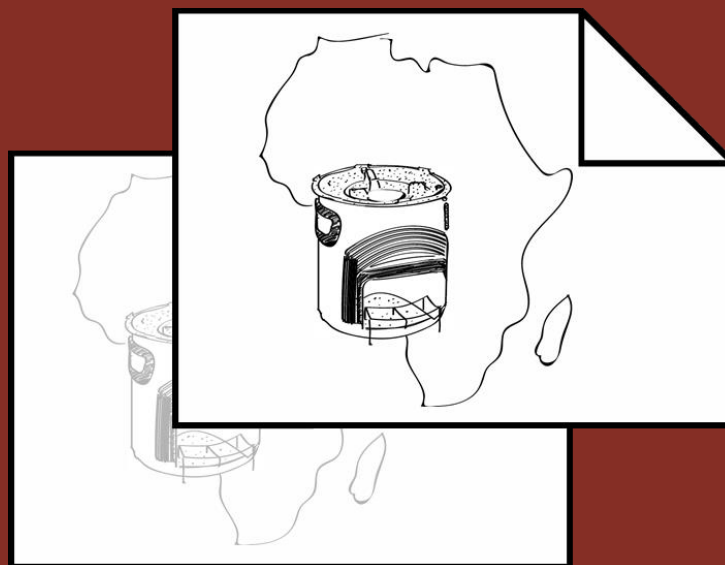


# Local Clean Cookstove Enterprises

## Replicator Workbook Preview



# What's it all about?




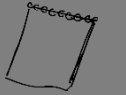


**Do you want to learn from proven business models from eco-inclusive enterprises around the world to tackle some of the key challenges your country is facing?**

Various entrepreneurs have already developed innovative business models that turned out to be successful and create relevant social, economic and environmental impacts. Replicating solutions that work can offer a fast and effective way to contribute to sustainable development and improve people's livelihoods.

## **The Replicator Workbook guides the process**

We developed our SEED Replicator Workbooks to guide you through the process of transferring a business model to another geographic location. Our workbooks identify best practices and shed light on conditions under which eco-inclusive enterprises in your sector operate. They include exercises that will guide you to explore your market and adapt business models to your context.

|              |   |   |  |  |
|--------------|---|---|--|--|
| <b>Steps</b> | <br><b>Detect</b><br>Challenges<br>& Opportunities | <br><b>Determine</b><br>Customer Needs<br>& Segments | <br><b>Discover</b><br>Inspiring Success<br>Stories | <br><b>Develop</b><br>Innovative<br>Business Models |
| <b>Tools</b> | Business Idea Tool  | Customer Segmenting<br>Empathy Map  | Business Model<br>Adaptation   | Visual Prototyping<br>Lean Enterprise<br>Blueprint   |

# How to use the Replicator Workbook?



In this workbook preview, click on **INSIGHTS** or **TOOLS** to discover more  
Or simply scroll to the next page



## Insights

into success stories & challenges of established eco-inclusive enterprises

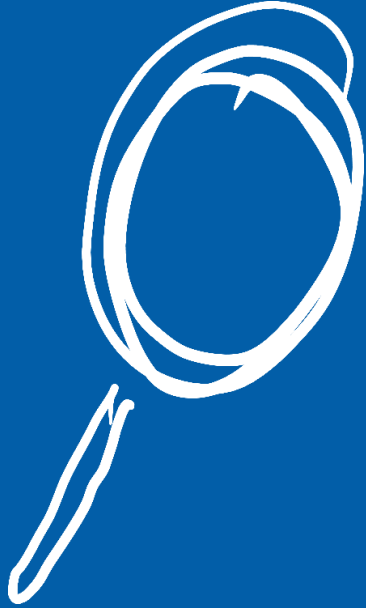
In our workbook, we include various **READINGS** on **proven models of eco-inclusive enterprises** around the globe, complemented by sets of best practices and explanations of conditions under which eco-inclusive enterprises operate. These readings are based on experiences of entrepreneurs active in the field of **local clean cookstove enterprises**.



## Tools

to guide you step-by-step as you develop your own eco-inclusive enterprise

Each **TOOL** provides step-by-step guidance to arrive at key outcomes. The first page of each tool offers a short overview of **when** to use the tool, **what** you do in the tool, **how** the tool is best used and which **key outcomes** are expected. The workbooks explains in detail what to do and which questions to ask yourself at each step while using worksheets for you to document your outputs.



Detect sustainability challenges in your country and brainstorm solutions to tackle them. Learn about the potential of local clean cookstoves and the social, environmental and economic impacts you could achieve.



## The global market

According to the Global Alliance for Clean Cookstoves (GACC), in 2015, an estimated 20.6 million stoves and fuels were distributed.<sup>3</sup> Of those, 13 million (=63%) were clean and/or efficient. Between 2010 and 2015, a total of 53 million clean cookstoves were distributed. GACC projects that by 2020, a total of 250 million clean and/or efficient stoves and fuels will have been put onto the market.

This growth potential also attracts investment. Between 2010 and 2015, clean cookstove and fuel companies raised nearly US\$60 million of debt and equity finance. There is a range of financing opportunities available (see the extra section on this at the end of this workbook).

## Different types of clean cookstoves and the fuel mix

The World Bank and GACC define three categories of “clean cooking solutions”.<sup>4</sup> Ordered by their potential for impact, these are:

- **Advanced improved cooking solutions:** natural draft gasifiers, fan-assisted gasifiers and TChar stoves (a combined gasifier/charcoal stove)
- **Modern fuel stoves:** liquefied petroleum gas (LPG) and dimethyl ether (DME), electric and induction, natural gas, kerosene
- **Renewable fuel stoves:** biogas, methanol, ethanol, solar ovens, retained heat cookers

The fuel mix (for cooking) of households in the developing world between 2005 and 2015 was estimated at:<sup>5</sup> wood 40%, coal 11%, charcoal 4%, LPG/natural gas 30%, electricity 3%, kerosene 3%, other 10%. Across the world, the use of LPG and other so-called “modern fuels” is markedly lower in rural areas compared to urban areas. There are also significant differences among regions: in Sub-Saharan Africa, 95% of rural households rely on solid fuels, whereas only 58% of those households do so in Latin America and the Caribbean.

## Opportunities along the entire value chain

As you will see in this workbook, the clean cookstove sector offers various opportunities for economic activities along the value chain. This includes:

- Designing the stoves
- Providing input materials for the production of stoves (e.g. steel)
- Producing and/or assembling the stoves
- Selling the stoves (as an agent/distributor)
- Collecting and selling biomass as fuel
- Processing biomass into pellets and selling them
- Servicing the stoves

# The Market for Clean Cookstoves

A grey silhouette of a world map with a network of thin white lines connecting various points across the continents. Small icons of clean cookstoves are placed at several of these network nodes. A large, light green diagonal banner is overlaid on the map.

Participate in an upcoming Replicator Workshop  
to discover **more about local clean cookstoves!**



Discover proven business models and adapt them to your local market. Identify key business model features.

# The Originators: 5 Star Stoves

Successful examples of eco-inclusive enterprises



**5 Star Stoves** sells fan-assisted, pellet-fueled cookstoves as well as biomass pellets. The business model's core element is a complex and diligently crafted network of partners and contractors. This setup allows the company to operate in a very lean manner, including a tightly managed customer relationship management (CRM) module to track and manage customers and organisational performance.

**Value Proposition:** The sales partner can earn a living from selling 5 Star Stove's cookstoves and its pellets. The end customer is provided with a clean cookstove that saves money and time and provides health benefits.

## **Key facts**

**Founded in:** 2012

**Country of headquarters:** South Africa

**Operates in:** mostly South Africa (townships Diepsloot and Tembisa in Johannesburg); first partnership operations underway in Bangladesh

**Employee size (2016):** 1

**Revenue (2016):** Stoves: 25,000 USD, pellets: 50,000 USD

**Website:** [www.5starstoves.com](http://www.5starstoves.com)



# The Originators: Awamu Biomass Energy

Successful examples of eco-inclusive enterprises



**Awamu Biomass Energy (“Awamu”)** produces and distributes several kinds of biomass stoves, all of which are natural draft gasifiers (as opposed to fan-assisted stoves). The company also sells fuel for the stoves, in the form of wood chips and pellets. This, however, unlike with other originators presented in this workbook, is not the main focus and source of income of Awamu’s model.

**Value Proposition:** Awamu’s stoves allow for fast cooking, with little smoke emissions, and require no tending to the fire when cooking. They can use many types of biomass- not just firewood, but also bamboo, cassava stems and corn cobs, among others. Furthermore, the stoves produce charcoal as a by-product, which can either be used for further cooking or sold off, thus creating economic benefits for the customer.

## **Key facts**

**Founded in:** 2012

**Country of headquarters:** Uganda

**Operates in:** Uganda (central and eastern region)

**Employee size (2016):** 12

**Revenue (2016):** USD16,000 (nearly all of it from stoves)

**Stoves sold in total:** ~4,000

**Website:** [www.awamu.ug](http://www.awamu.ug)

Insights

# The Originators

Successful examples of eco-inclusive enterprises



Participate in an upcoming Replicator Workshop  
to discover **more exemplary eco-inclusive enterprises!**



Determine your target customer and the benefits you want to create for your stakeholders. Map out why your solution is unique and why your customers will love it!

# Your Customer Tool



### When?

To refine your business idea, you need to identify your potential customers. Therefore, this tool is best applied in the elaboration process of your business idea.

### What?

Customers stand in the centre of any business. Even the best idea is worthless if no one buys the product. Most enterprises serve different groups of customers (customer segments) that share certain characteristics. Identifying the different segments in the first step helps you to learn more about each of them. Once you have stepped into your customers' shoes, you can target your product and marketing activities better.

### How?

Sit down to think about which customer groups you would like to serve. Once you have identified the customer segments, it's time to go out and speak with your potential customers to gain a better understanding of their needs.

### Steps?

**Step 1** → Identify Customer Segments

**Step 2** → Understand Your Customers



## Key outcomes

- Get to know potential customer segments for your product
- Set the basis to build a customer-centric business model

# Your Customer Tool



## Step 1

### Identify Customer Segments

The first step is to divide the large pool of potential customers into customer segments. Customer segments are groups of customers who share certain characteristics or behave in a similar way.

- What will influence the preferences of potential customers towards your product or service?
- Will individual buyers have different expectations and needs from small stores? What about government institutions, NGOs or businesses?
- Will grandchildren have different expectations and needs than their grandparents for example? What about men and women, people with different religions, incomes, education levels or professions?
- Will people in rural areas have different expectations and needs from urban citizens? What about people in City X and City Y?
- Will people who have different knowledge about your product or service have different purchasing and usage patterns? Buy it more or less often, use it more or less often or use it in different ways?

Complete the information you gathered in the *Your Customer Segments* WORKSHEET on the following page. We have left space for up to five customer segments; you should identify at least two.

## Step 2

### Understand Your Customers

- Out of the customer segments you identified in Step 1, select the ones that appear most important for you, for example because of their size, because they are most likely to buy your product or because they are the easiest ones for you to reach.
- For each of your key customer segments complete the WORKSHEET *Your Empathy Map*.
- The *Empathy Maps* ask you to step into your customers' shoes: What does he/she think, say, see, do, feel, and hear? You can answer the questions in discussions with your team, through internet research, interviewing or observing potential customers etc.
- It's easier to answer the questions if you imagine one representative person of each segment, and add their name and age in the middle of the *Empathy Map*, in addition to the title of the customer segment.

You will find relevant key questions for your EMPATHY MAP on the next page!

# Your Customer



→ **What does she/he think?**

- What matters most to her/him? What moves her/him? What are her/his dreams? Which may be her/his worries?

→ **What does she/he say?**

- What does she/he tell others? What is his/her attitude? Does she/he influence others?

→ **What does she/he see?**

- What kind of products/services does your customer see in the market? What attempt is being made to influence her/him?

→ **What does she/he do?**

- What is she/he constantly trying to improve? What activities does she/he cherish doing? How does she/he spend their time?

→ **How does she/he feel?**

- What does she/he experience in relation to your product or service domain? This experience can be negative or positive.

→ **What does she/he hear?**

- What do friends say? What do her/his influencers say? What media channels influence her/his opinions on products and services?

- Keeping the following questions in mind will prove useful during the refinement process of your business idea:
  - How can you fulfill the needs of your customers, and provide them with more benefits?
  - Should the product or service be targeted towards different market segments?
  - Is there anything else you still want to learn about your customers?

# Your Customer



## WORKSHEET Your Customer Segments

### Step 1

| Customer Segments |   |   |  |  |  |
|-------------------|---|---|--|--|--|
| Title             | Households                                  | Local food businesses                     | Hotels, institutions                   |  |  |
| Description       | Rely on expensive harmful fuels for cooking | Need more reliable source of clean energy | Consume large amounts of harmful fuels |  |  |

# Your Customer



## WORKSHEET Empathy Map

### Step 2

**What does she/he think?**

What is a good and affordable solution?

I want to keep my family healthy

**What does she/he say?**

The fuels I am using are harmful for my health

Wood charcoal is expensive and harms the envi

**What does she/he see?**

More people feeling unwell

**What does she/he hear?**

Neighbours have same concerns

Complains about increasing living costs

**Who is he/she?**

A mother and entrepreneur

**What does she/he do?**

Runs a small business

Cares for her family

**What does she/he feel?**

Frustrated & concerned

**How did you learn about your customer?**

Asking family members, friends, relatives and interviewing other locals.



# SEED Replicator Tools

A light gray world map with small flag icons placed on various continents. Thin white lines connect these flags, creating a global network pattern. A large, light green diagonal banner is overlaid on the map, containing the main text.

Participate in an upcoming Replicator Workshop  
to discover **more business planning tools!**



Let's replicate the success of **eco-inclusive enterprises** together!

Learn more about the SEED Replicator and how to apply to an upcoming workshop near you:

- ✉ [replicator@seed.uno](mailto:replicator@seed.uno)
- 🌐 [seed.uno](http://seed.uno)
- 📘 [facebook.com/seed.uno](https://facebook.com/seed.uno)
- 🐦 [@seed\\_sustdev](https://twitter.com/seed_sustdev)

