Shell Foundation
Breathing Space Programme

HEH Strategy Review
Shell Foundation aims to achieve a significant long term reduction in the incidence of Indoor Air Pollution at the global level, by deploying approaches which are market oriented and commercially viable.
Processes and Tools To Date

♦ Pilot and Scale up of projects globally

♦ Monitoring and Evaluation

♦ Technology equipment, publications and training

♦ Commercialisation Toolkit & Business Plan Toolkit
Most households aspire for modern cooking fuels, however, based upon affordability and fuel availability, improved cook stoves provide a practical step up the energy ladder.

<table>
<thead>
<tr>
<th>Customer Segment</th>
<th>Target Product</th>
<th>Income</th>
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</thead>
<tbody>
<tr>
<td>Segment 1</td>
<td>Traditional Cook Stoves</td>
<td>&lt;$1</td>
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<tr>
<td>Rural BPL</td>
<td>ICS (Aspirational)</td>
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<tr>
<td>Segment 2</td>
<td>Improved Cook Stoves</td>
<td>$1-3</td>
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<tr>
<td>Rural Med Income</td>
<td>(Fixed &amp; Portable)</td>
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<td>Segment 3</td>
<td>LPG/Kerosene</td>
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♦ ICS satisfies both **customer affordability and cooking requirements**

♦ Opportunities exist to help customers **access LPG/Kerosene** through financing, however, market size and impact may be limited

♦ Large market opportunity to fill a **gap** between traditional cook stoves and modern fuels
Market Evaluation Criteria

Each geography is rated against the following market criteria in order to identify which markets provided the greatest commercial opportunity for an IAP programme.

- Size of the IAP problem
- Market Environment
  - Political & Business Environment
- Stove Industry Maturity
- Customer Demographics
  - Income Levels
  - Customer Value Proposition

Rating:
- High = 4
- Medium = 3
- Low = 2
- Minimal = 1

<table>
<thead>
<tr>
<th>Region</th>
<th>Size of the IAP Problem</th>
<th>Market Environment</th>
<th>Foreign Aid Trends</th>
<th>Industry Maturity</th>
<th>Industry Players</th>
<th>Customer Demographics</th>
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<tbody>
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Target Countries

A high level review of the selected geographies indicates that **India, Uganda/Kenya and Brazil** are the most commercially attractive markets to consider for future programmes.

- China provides a commercially attractive market, however political constraints may limit the opportunity within the region.
- A China Opportunity Assessment will be conducted to determine the impact and scale of an intervention.

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<table>
<thead>
<tr>
<th>Country</th>
<th>Urban</th>
<th>Rural</th>
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<tbody>
<tr>
<td>China</td>
<td>11%</td>
<td>89%</td>
</tr>
<tr>
<td>India</td>
<td>9%</td>
<td>91%</td>
</tr>
<tr>
<td>Uganda</td>
<td>15%</td>
<td>85%</td>
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<tr>
<td>Brazil</td>
<td>10%</td>
<td>90%</td>
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<tr>
<td>Nigeria</td>
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<td>Ghana</td>
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<td>Ethiopia</td>
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Urban/Rural Split for Commercial Market for Improved Cooking Devices

- **China**
  - Urban: 11%
  - Rural: 89%
- **India**
  - Urban: 9%
  - Rural: 91%
- **Uganda**
  - Urban: 15%
  - Rural: 85%
- **Brazil**
  - Urban: 10%
  - Rural: 90%
How do we serve rural customers?

**Business Model: Rural Decentralised Model**

A **Rural Decentralised Commercial Model** is the appropriate business model for the commercially viable target market of **rural medium income households**.

### Business Model Components

- **Awareness (Raising IAP Awareness)**
  - Set-up long-term awareness programme
  - Execute centralised IAP awareness

- **Marketing (Creating Demand)**
  - Develop & disseminate marketing material (brands, designs, pamphlets)

- **Bus Dev Assistance**
  - Provide core business skills training to District Coordinators and manufacturers

- **Technology Provider**
  - Stove R & D
  - Manufacturer training & stove certification

- **Suppliers (Materials, Components)**
  - Provide raw materials and components

- **Commercial Implementer (CIs)**
  - Executing marketing campaigns (Raise awareness of stoves locally)
  - Monitor customer needs and communicate design changes
  - Setting up clusters of entrepreneurs (capacity building)
  - Monitor entrepreneur performance
  - Manage quality control at manufacturers and at final customer

- **Regional Coordinator**
  - Manage overall ICS programme
  - Identify new districts and appoint CIs
  - Provide marketing material to CIs

- **Set-up long-term awareness programme**

### Finance Providers

- **Enterprise Financing**
  - Provide funds
  - Leverage CDM

- **Consumer Financing**

- **Donor Funding**
  - Provide funds

### Manufacturers

- **Masons Potters**
- **Artisan Groups**
- **Women's Groups**
- **Local Manufacturer**

### Customers

- **Village Shops**
- **Installers (QC)**
- **Direct to Customer**

### NGOs (B2B)

### Value Chain

1. **Manufacturers**
   - **Masons Potters**
   - **Artisan Groups**
   - **Women's Groups**
   - **Local Manufacturer**

2. **Suppliers**
   - **Materials, Components**

3. **Commercial Implementer (CIs)**
   - **Bus Dev Assistance**
   - **Market Demand**
   - **Technology Provider**

4. **Awareness**
   - **Raising IAP Awareness**

5. **Finance Providers**
   - **Enterprise Financing**
   - **Consumer Financing**
   - **Donor Funding**

6. **Regional Coordinator**
   - **Set-up long-term awareness programme**
   - **Execute centralised IAP awareness**

7. **Customers**
   - **Village Shops**
   - **Installers (QC)**
   - **Direct to Customer**

8. **NGOs (B2B)**
How do we serve urban customers?

**Business Model: Urban Centralised Model**

A **Urban Centralised Model** is the appropriate business model for the commercially viable target market of **urban medium income households**.

- **Suppliers (Materials, Components)**: Provide raw materials and components.
- **Finance Providers**:
  - **Enterprise Financing**
  - **Consumer Financing**
  - **Donor Funding**
    - Provide funds
    - Leverage CDM
- **Technology Provider**
  - Stove R & D
  - Manufacturer training & stove certification
- **Regional Coordinator**
  - Manage overall ICS programme
  - Identify new districts and appoint manufacturer
  - Provide marketing material to manufacturer
- **Centralised Manufacturer**
  - Executing marketing campaigns (Raise awareness of stoves locally)
  - Monitor customer needs & communicate design changes to tech partner
  - Manage centralised quality control
- **Wholesaler**
- **Retailers**
- **Direct to Customer**
- **Customers**
- **NGOs (B2B)**
- **Bus Dev Assistance**
  - Provide core business skills training to regional coordinator and centralised manufacturer
- **Marketing (Creating Demand)**
  - Develop & disseminate marketing material (brands, designs, pamphlets)
- **Awareness (IAP Awareness)**
  - Set-up long-term awareness programme
  - Execute centralised IAP awareness

**Stove R & D**

**Manufacturer training & stove certification**
Shell Foundation aims to achieve a significant long term reduction in the incidence of Indoor Air Pollution at the global level, by deploying approaches which are market oriented and commercially viable .......

20 million stoves sold in 5 countries in next 5 years employing $50 million
Shell Foundations role

- **Overseeing** each project and **managing** it
- **Identifying, Scoping, Capacity Building** and leading the way for deliverables with all partners on:
  - 6 new geographies
  - BDA
  - Awareness
  - Funds
  - Bank financing
  - Technology
  - Governance on boards of main commercial project partners
- Consolidated reporting by each project- Monthly
- Communications – Build the storylines
SF will ‘own’ this in 2006 and part 2007 and then vision for Breathing Space spin off.

This is a commercial model and will probably include commercial players in some roles.

Focused and strategic but recognise that it is only one solution.

Still a critical need to find a suitable technology that will deliver the improved stove performance and the customers needs.

Continued focus on Biomass to reach the most commercially viable and significant scale customer segment.

No strategic focus on BPL or institutional customer segment (B2B model to be dealt with opportunistically).

Blend of grant and “investment” funding (1:3).

Difference to now: Right role/Right People vs. everything for all; investment vs. grant; Ad hoc enablers vs. focus on enabling environment.
HEH Timeline - Overview

2006

- Awareness
  - Strategy & Material

2007

- Communications
  - Strategy, Material, Rollout

- Technology
  - Global Standards & Product Suite

2008

- India Implementation
  - Select, Contract, Manage
  - Identify local partners in target states
  - Define and cost the enablers
  - Tender out & award partner contracts

2009

- Ongoing Communications

- Technology Improvements
  - Ongoing Research & Development, Product improvements

- India Project Management
  - Partner Performance Management

- Uganda Review

- Uganda Implementation
  - Select, Contract, Manage

- Brazil Review

- Brazil Implementation
  - Select, Contract, Manage

- Country 4 Review

- Country 4 Implementation
  - Select, Contract, Manage

- Country 5 Review

- Country 5 Implementation
  - Select, Contract, Manage

- Country 5 Proj Mgmt
  - Partner Perf. Mgmt

Manage to Close Legacy Projects

- Review M&E requirements

Identify, Scope and Pilot New Opportunities

- Urban Model Project
  - Potential (if no other urban)

- Review of scale up strategy

Financing options
Next Steps…

♦ Consult external stakeholders for feedback

♦ Recruit new SF HEH personnel

♦ Scope and cost enablers for India, and then Globally

♦ SF Roll out in India
  ♦ Getting interest contacting potential partners Q1
  ♦ Scoping Q2
  ♦ Tending Q3

♦ Other country reviews