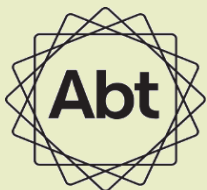


Advanced Cook Stoves Initiative

Developing & scaling-up a sustainable model to increase uptake in rural Uttar Pradesh, India

Ramakrishnan Ganesan, COP, Abt Associates India



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Abt Associates leads the project in collaboration with
Banyan Global
Jhpiego
Marie Stopes International
Monitor Group
O'Hanlon Health Consulting

Health Impact of Indoor Air Pollution (IAP)

India has one of the highest burden of diseases due to IAP

- **Poor combustion of solid fuels** such as wood and coal is one of the **major causes of IAP**
- Traditional stoves convert **6%–20%** of fuel carbon to **toxic substances** as a result of poor combustion



- IAP is the **second leading** cause of death in India
- **Women and children** have high exposure to IAP and are the most impacted
- IAP resulting from traditional stoves burning solid fuels claims between **400,000** to **600,000** lives in India every year

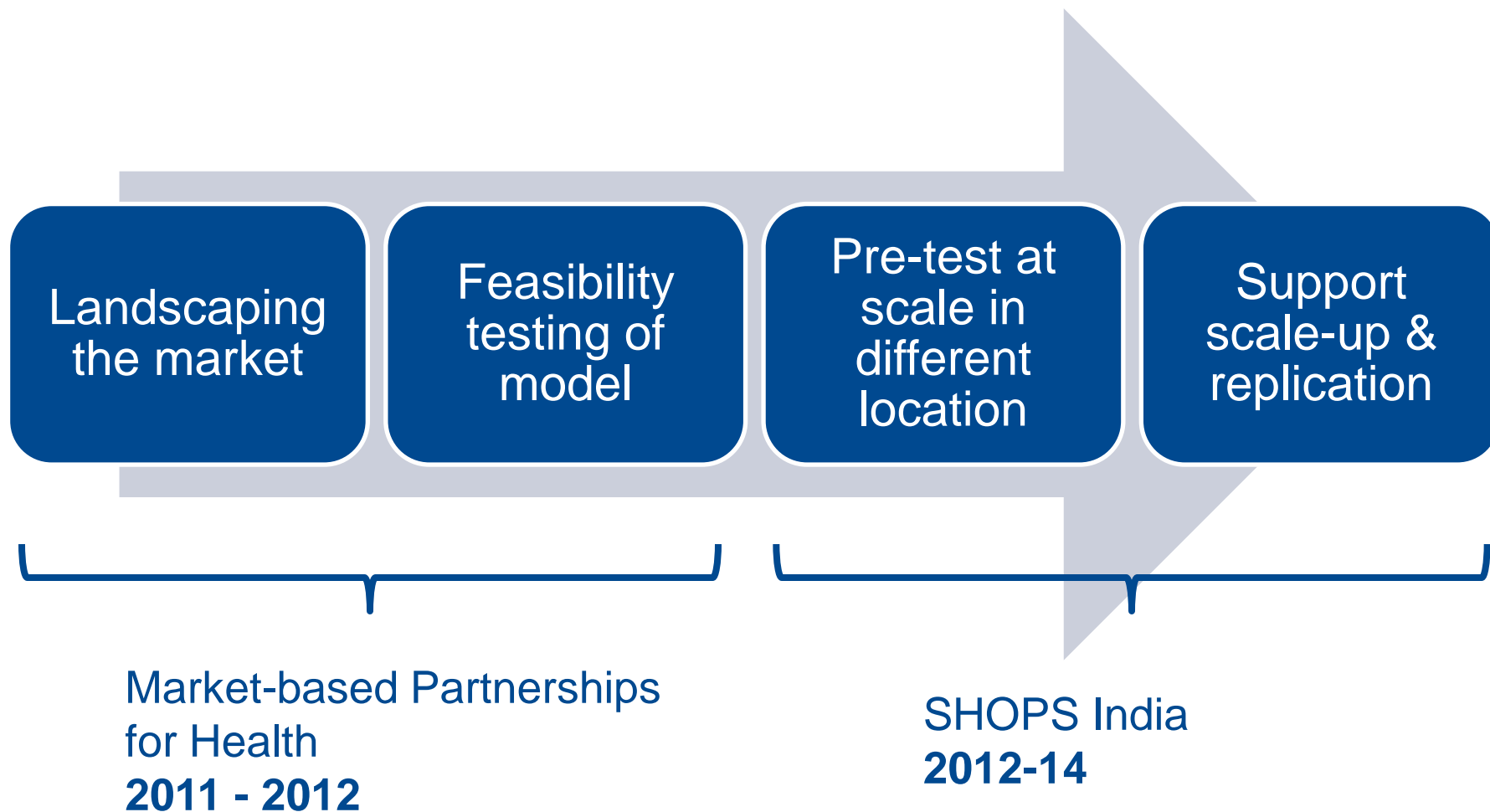


The Advanced Cook Stove (ACS)



- Marketed by Envirofit
- Decreases emissions by 50%
- Suitable for northern India (fuel, cooking practices)
- Price: Rs. 1899/- (\$30)
- Manufacturer willing to invest in market development

Roadmap to Commercializing ACS



Landscaping the ACS Industry

Assessment

- Overall, advanced cook stoves market is at a nascent stage with no successful commercially viable network in place
 - Recent interventions have largely focused on improving appropriate product offerings with respect to reducing emissions
 - Limited interventions along other elements of the value chain viz. distribution, financing, demand generation
- Large potential market, but demand is latent
 - Low awareness and willingness to pay among potential consumers

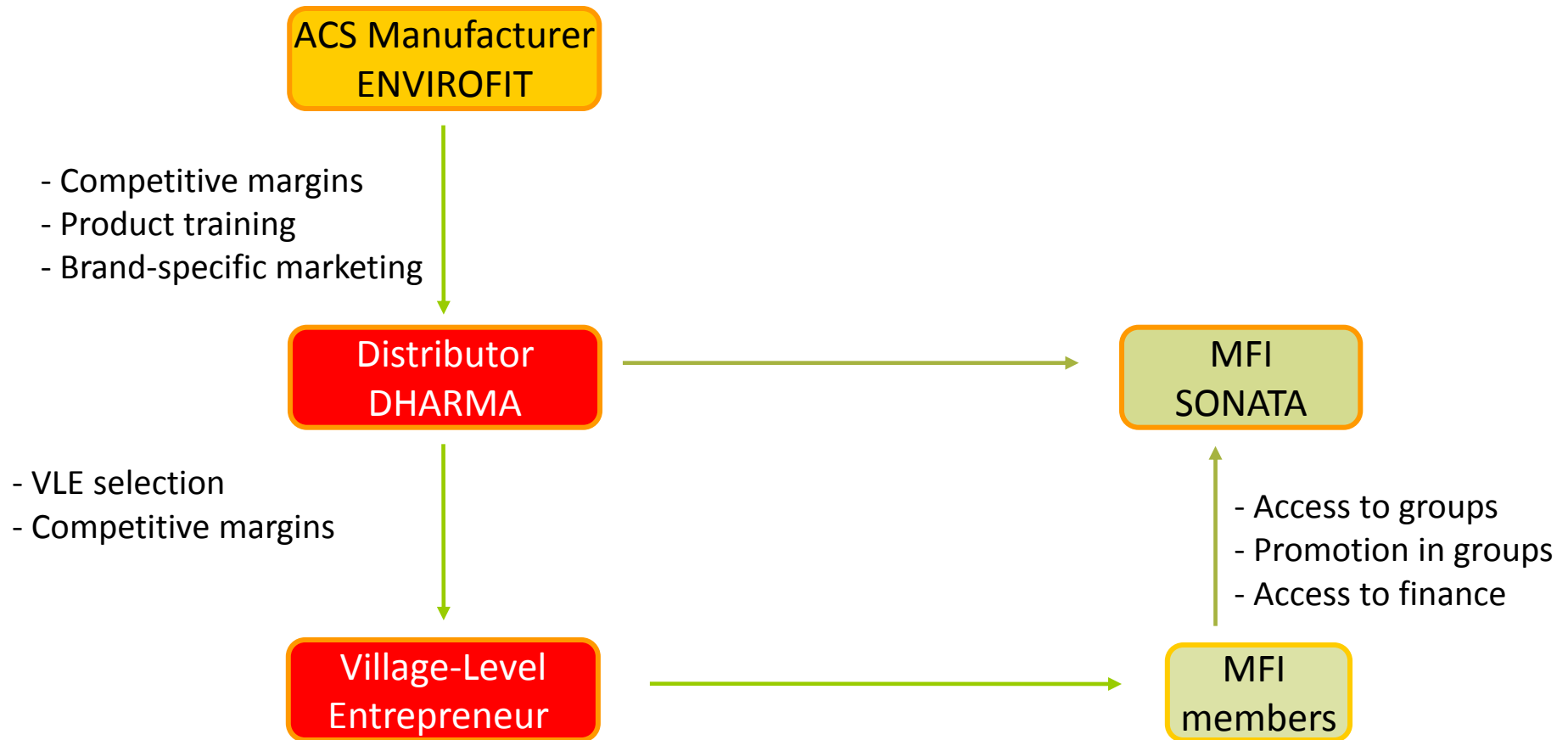
Implications

- To foster adoption of ACS and to create a commercially viable network, interventions are required across along multiple elements of the value chain
- Commercialization model must provide for intensive engagement with consumers, and product financing

Feasibility testing in 100 villages of UP (2011-12)



Pilot Model & Partners



Pilot Results

21% uptake among MFI clients with a potential for commercial viability

- During the 6-month pilot:
 - 906 stoves were sold in a catchment area of 4300 MFI clients
 - 86% awareness among MFI clients with 51% of them positively disposed
 - 33% awareness among general population
- Overall, the model showed positive ROI (8%), and need for realignment of margins among partners

Pre-testing at scale in a different location (2013)

- As preparation for scale-up, model tested in Allahabad region
 - 4 districts, 45,000 clients
- Initial results encouraging
 - 550 clients apply for loans to purchase the ACS in first 2 months
- Model grinds to a halt after 4 months
 - 94 stoves sold, other clients refuse to purchase, no new leads
 - 2% uptake rate below requirement for model break-even
- Conflicting findings from assessment by partners
 - **Envirofit:** Lack of support from Sontata's Loan Officers the key reason
 - **Sonata:** Product manufactured locally underperforms in comparison to the imported product tested during pilot

SHOPS India Assessment & Recommendations

- A higher proportion of households in Allahabad use dung cake as a cooking fuel
 - Dung cakes result in more smoke
 - Dung cakes are significantly cheaper than wood
- For Households using dung cake , the main product proposition - lesser smoke, faster cooking, and fuel efficiency - not relevant

District (Rural)	Type of fuels used by Households – Census 2011		
	Firewood	Cow Dung	Cooking Gas
Allahabad	40%	46%	8
Sultanpur	71%	16%	6
Faizabad	67%	19%	7

- Partners' assessment partially right
- Need to transfer the intervention to a different geography

Scale-up & Replication (2014)

Scale-up

- Intervention now focused on areas with high firewood use
- Early indications promising:
 - In the first week 55 loan applications were received, potential for 15% uptake rate
 - Partners are regaining confidence

Replication

- New partnerships forged to replicate model
 - Manufacturer: Greenways
 - MFIs, Distributors: SREI-Sahej, Pratinidhi & Margdarshak

Summary

- A three-way partnership model (Manufacturer, distributor, microfinance institution) shows promise for commercializing ACS in rural markets
- Road to commercialization is not a two-step process of pilot testing and then scale-up
- Role of a 'honest broker' critical in stewarding partnerships even after model feasibility has been demonstrated



THANK YOU
Ramakrishnan Ganesan
ram@abtindia.net