

## Slum Lav Millionaire



Slum Lav Millionaire is a social impact investment fund that provides improved sanitation to currently unreached populations and communities in urban slum in India accelerating health, social and even economic development with strong value creation and significant health & environment benefit.

### Challenge

**Global Issue:** 2.5 billion people lack toilets, and poor sanitation is a leading cause of disease and child death. Globally, there are nearly 1.7 billion cases of diarrhea disease every year. Economic analysis of the health gains from sanitation shows that every US dollar invested in sanitation would give a return of about US \$5.5.

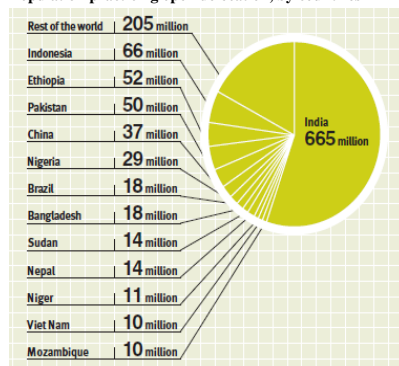
**Most Impacted Geography:** Among the top countries suffering from this, India leads the charts with a staggering 0.4 Million child deaths due to diarrhea alone. While availability of sanitized toilets leads the reasons for this number, a lot has been done to control this disease from going out of control.

**Solutions & Challenges:** A number of government institutes and NGOs such as *Sulabh International* have been working towards this. However these suffer from issues of low scalability and lack of consistent and sustained funding. They have also been focusing more on rural India which faces only 50% of the deaths. The Indian Government spending faces the challenges of tracking the impact as well as productive utilization of funds with no significant impact on diarrhea numbers in spite of increased spending.

List of countries with child deaths due to diarrhea <sup>1</sup>

RANK	COUNTRY	TOTAL NUMBER OF ANNUAL CHILD DEATHS DUE TO DIARRHOEA
1	India	306,600
2	Nigeria	151,700
3	Democratic Republic of the Congo	89,900
4	Afghanistan	82,100
5	Ethiopia	73,700
6	Pakistan	53,300
7	Bangladesh	50,800
8	China	40,000
9	Uganda	29,300
10	Kenya	27,400
11	Niger	26,400
12	Burkina Faso	24,300
13	United Republic of Tanzania	23,900
14	Mali	20,900
15	Angola	19,700

Population practicing open defecation, by countries <sup>2</sup>



### Solution

Our solution is to sell portable compost toilets with a solar panel powered coin machine to operate them. We will partner with existing micro lenders and local NGOs to incentivize the purchase of one or several toilets as a sustainable social impact business opportunity. The pool of micro loans will be securitized and divided in 2 tranches, which will then be sold to two different types of investors, addressing their specific investment criteria. Hence, we estimate that our project could have spill over effects over \$ 100M.

### Market Opportunity

#### Key Customer Segment:

Urban slum dwelling women aged 15Yrs+ are not having adequate toilet facilities in the urban parts of India and need proper sanitation

**Scale:** The product is scalable and can be expanded in waves

- Wave 1 :** All slum dwelling women 15 Yrs+ in Top 8 Metro (\$8M market)
- Wave 2 :** All slum dwelling women 15 Yrs+ in 32 Tier II cities (\$16M market)
- Wave 3 :** Extending to Men in India's Top 8 Metroes (\$14M market)
- Wave 4 :** Extending to Men in India's Next 32 Tier II cities (\$22M market)
- Wave 5 :** Extending to other countries in Africa and Asia

**Secure income:** The customer need for the product is relatively inelastic with a constant demand and lack of any waterless sanitation solutions in the future

**Health and development benefits exist:** Improved Sanitation could save over 80,000 lives across India with and save government healthcare funding

**Sustainable market returns for investors:** Investors can expect returns equal to or more attractive than other senior ABS benchmarks.

### What is the strategy?

- Improve sanitary conditions, especially for women and children
- Apply a proven business model to an innovative product
- Multiple beneficial spill-over effects
- Tap into \$60 million market in India

### Realistic to launch:

- Start in India because it has the largest need for toilets and has an established network of micro finance institutions
- Focus initially on highly populated slum districts of top 8 metros
- Partner with local NGOs such as *Sulabh*, specialists in the field of sanitation

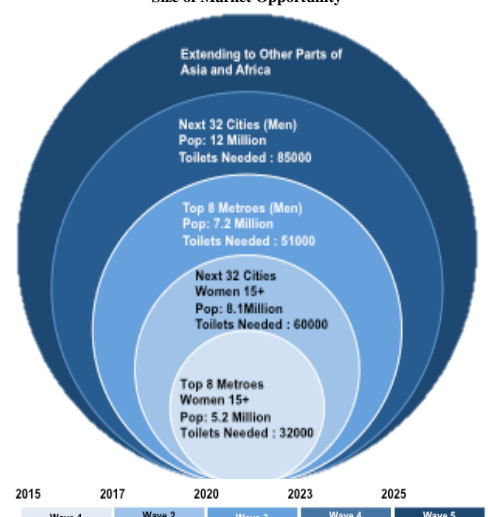
### What is the product?

- Portable compost toilet
- Odorless, separates urine and compost easily removable
- Solar powered coin machine
- Cost: \$300 per unit <sup>4</sup>
- Expected life cycle of 10 years

### Who do we partner with?

- **Impact investors:** Social venture funds such as Bill & Melinda Gates Foundation, Acumen and UHNWI. [1<sup>st</sup> tranche]
- **Institutional investors:** Pension Funds [2<sup>nd</sup> tranche]
- **Investment banks:** Morgan Stanley
- **Micro finance institutions** with established local network in target areas
- **Operators & cleaners:** Female local entrepreneurs
- **Strategic partners:** *Sulabh International*, Government of India (Ministry of Health and Education)

Size of Market Opportunity



## Operating Model

### CLO Capital Structure

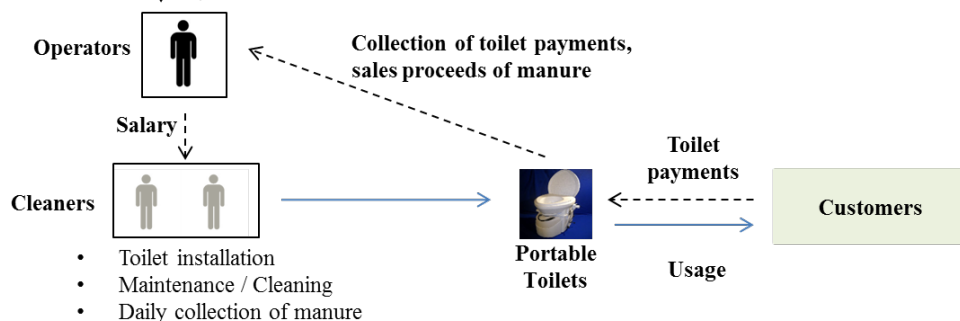
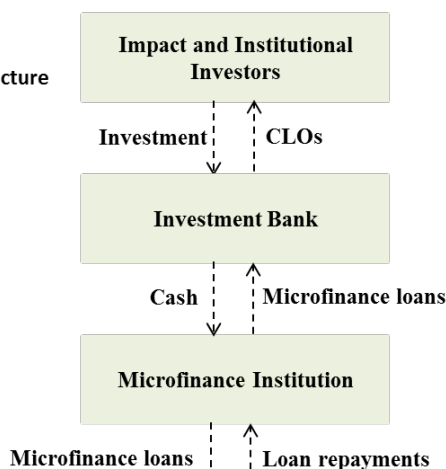


- Junior loan
- Senior Loan

### Operator Capital Structure



- Downpayment
- Loan Amount



Operators Monthly Profitability

## Social Impact: Monitoring and Measurement

- Sanitation:** Number of portable toilets and frequency of their usage (target 64,400 toilets installed and 9 million toilet users in five years)
- Monetary:** Return on CLOs to investors; income of operators and cleaners, the amounts of which are proportionate to the above indicator
- Job creation:** Number of operators and cleaners
- Women empowerment:** Toilet marketing and entrepreneur recruitment with a particular focus on women

## Risk Factors

- Default risk of operators:** Operators may default if they cannot generate sufficient revenue through toilet payments from users and manure sales. Partnering with the local microfinance institution will mitigate this default risk through MFI's frequent visits and business advise to the operators
- Availability of resource:** Maintaining the hygiene of the Toilet would be a challenge and it will be up to the toilet owner to ensure the operations come through.
- Conflict with the existing subsidies programs:** Discussion will be held with the Government of India to reduce toilet subsidies in the target areas
- Conflict with the existing Sulabh program:** Consultation will be made to Sulabh International to clearly differentiate our project from their existing programs and develop operational partnership where appropriate
- Lack of technical skills of operators:** In partnership with the MFI and toilet producer, Slum Lav Millionaire will provide initial technical training to operators as needed
- Confrontation with local operators:** Local Slum Mafia can be problematic within the local operation of the toilet, but the financial model for the operator will have to take into consideration the miscellaneous costs to deal with them. Partnering with government & local NGOs will help mitigate risk.

## Details of CLO

- \$20M notional
- Maturity 5 years
- 2 tranches of CLO [Collateralized Loan Obligation] according to investor type
- Junior tranche 30% exp. yield of 14% [First hit by NPLs]
- Senior tranche 70% exp. yield of 8%
- FX hedged

## What are the economics?

### Revenues

- MFI loan: 20~25%
- RBI recently listed upper limit of 26% (8. Feb 2014)

### Costs

- Investment return: 8~14%
- WACC: 10%
- MFI costs: 4%
- IB costs: 3%
- NPL cost: 3~7%
- Slum Lav Management Fee: 1%

## Team

- Tina Aikyo: *Japanese*, 29, 4yrs advisory
- Ik Jae Jeong: *Korean*, 29, 6yrs marketing
- Kaustubh Rajnish: *Indian*, 32, 6yrs consulting
- Kevin Delissy: *Swiss*, 29, 5yrs equity sales

## Acknowledgement

- Ian Potter: *Distinguished Fellow*, INSEAD