

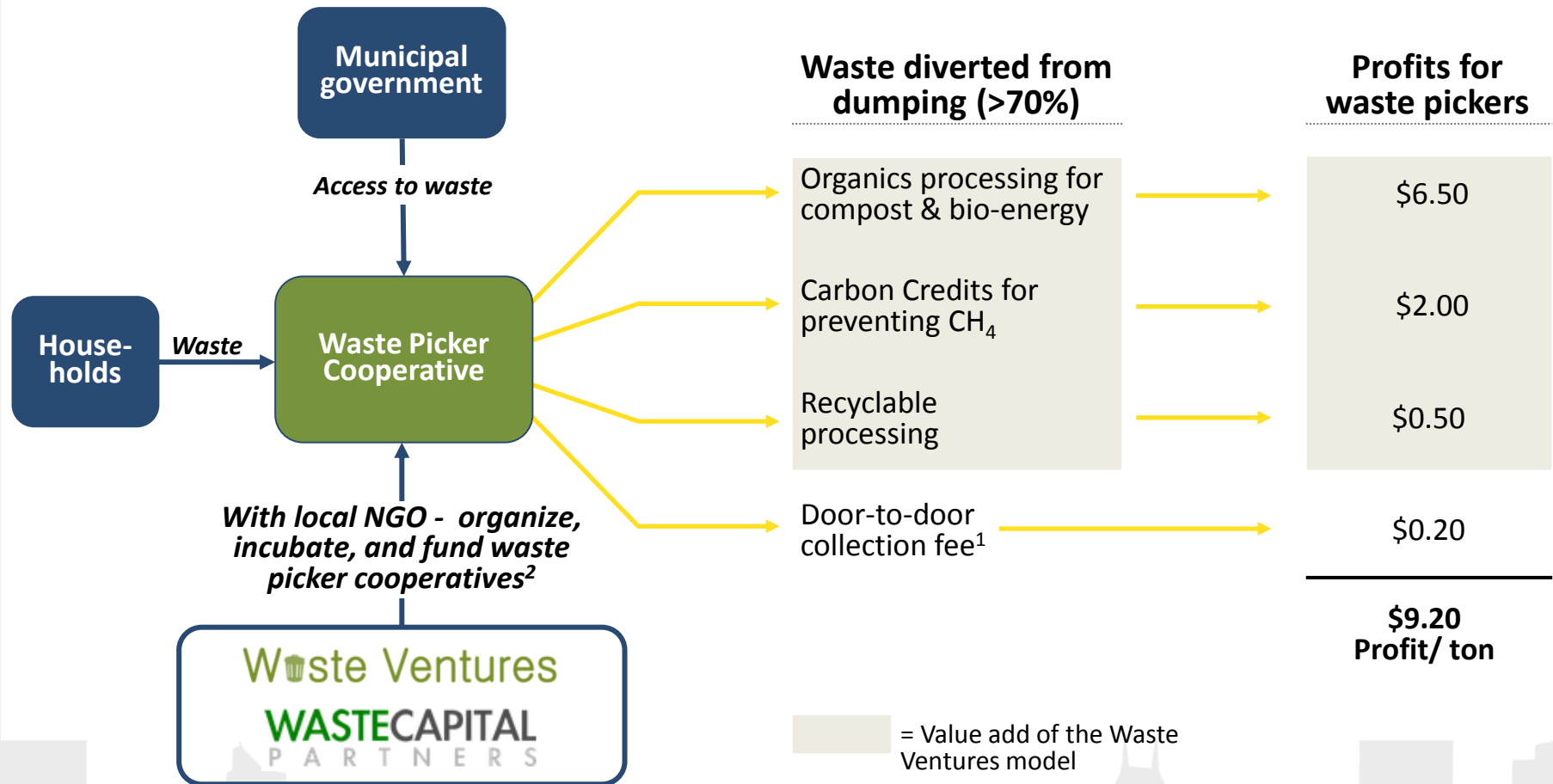
Waste Ventures

Project to Take 100 Indian Waste Pickers Permanently
Out of Poverty



Waste Ventures breaks the waste picker cycle of poverty while cleaning up emerging market cities

Waste Ventures intervention creates profits over 4x above the current system



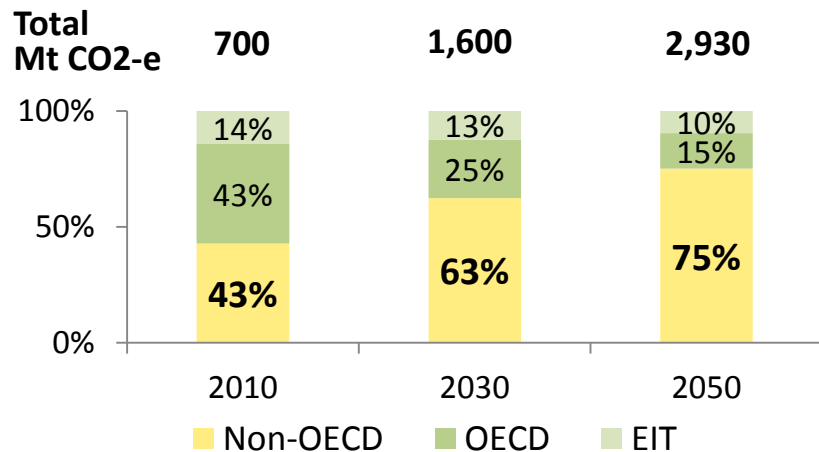
(1) Current contractors only provide secondary (not door-to-door) collection services at a profit margin/ton of \$1.90 where Waste Ventures' model provides door-to-door collection for \$0.20 profit/ton, supplemented by profits from processing

(2) Waste Ventures and Waste Capital Partners operate separately, each with an individual direct link to the Waste Picker Cooperative

In doing so, we address two of the most pressing problems in developing cities: environmental degradation and social exclusion

Waste is growing rapidly as a potent contributor to greenhouse gases

Relative contribution to methane released from landfills



- Developing country landfill GHG emissions are projected to increase from 43% of the global total in 2010 to 75% in 2050

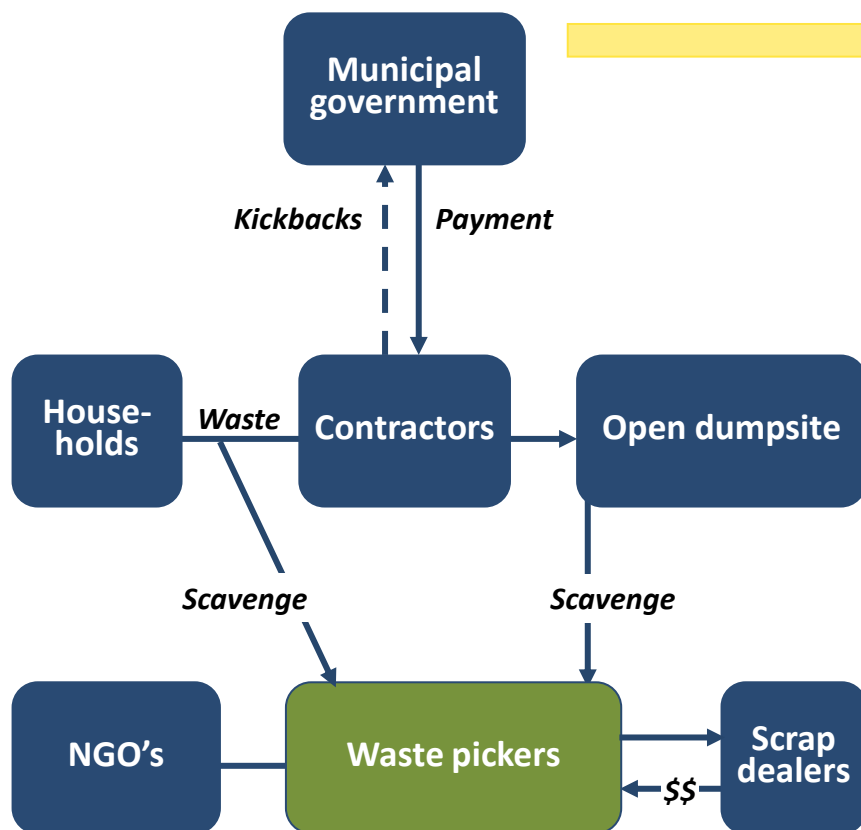
Waste pickers process recyclables at the cost of their health and dignity



- 50 million people globally rely on waste picking
- 20-40% of waste pickers are children¹
- Unsafe conditions reduce life expectancy by 20 yrs
- Irregular income creates reliance on scrap dealers for cash flow and credit at usurious interest rates

There are several key opportunities present in the current solid waste management market...

Market opportunity



Kickbacks sustain inefficiencies

- 10-15% of municipal budget spent on SWM
- Accept poor service levels at high costs because contractors provide kickbacks
- Conversely, eliminating kickbacks through good governance enables total system change

Value in waste simply dumped

- Contracts paid on volume dumped
- 40% of India's waste is never collected
- Despite over-charging and under-delivering, contractors only achieve \$1.9 profit/ton due to lack of processing (dump >70% of waste collected)

Existing expertise insufficiently leveraged

- Waste pickers find and sell high market value scrap
- Exploitative dealings with scrap dealers and subsequent unstable income leave waste pickers searching for alternatives
- A growing number of NGOs organize waste pickers into collectives to improve their conditions; provide local base with waste picker & municipalities

...which we aim to take advantage of leveraging our extensive experience, technical skill and networks

Solid waste management expertise

- Technical experience on 120 SWM projects in India
- Rigorous proof of concept and pilot in India since 2009¹
- Technical advisors pioneered 'at scale' biogas, compost, and waste picker cooperatives in South Asia

Business experience in India

- Years conducting due diligence for Schwab Foundation / WEF in India
- Experience in founding multiple Indian social enterprises
- Advisors Harish Hande and Vikram Akula have been leading Selco and SKS respectively for 10+ years²

Government support

- Policy gives preference to green waste management and waste pickers
- Backing of both political and administrative bodies
- Municipal leaders have vested stake by providing equipment

Vetted local partner

- Operated for seven years in door-to-door collection
- Innovator in Indian solid waste management by waste pickers
- In addition to 4 years of working relationship, underwent 200 hours of critical due diligence

Total sector shift

(1) Please see Appendix II for detailed team, board, and adviser profiles

Our success will be marked by a sector shift creating lasting change across six quantified metrics

Metric	Outcome
Waste picker livelihood	<ul style="list-style-type: none">• Increase livelihood from \$1.5 to \$4.5 a day through new (stable) revenue streams and higher margins
Waste picker health	<ul style="list-style-type: none">• 25% increase life expectancy through use of protective gear
Municipal sanitation	<ul style="list-style-type: none">• Diverting 70% of waste from landfill by composting 50% of waste and recycling 20% of waste
Greenhouse gases	<ul style="list-style-type: none">• Reduce global GHGs by 1.5% by composting organic waste instead of letting it rot
Sector shift	<ul style="list-style-type: none">• Waste Ventures blueprint is adopted by other players as a higher margin market-based model
Investor return	<ul style="list-style-type: none">• Create commercial interest in sector with a 40% profit margin

Appendix I

LIVES OF WASTE PICKERS



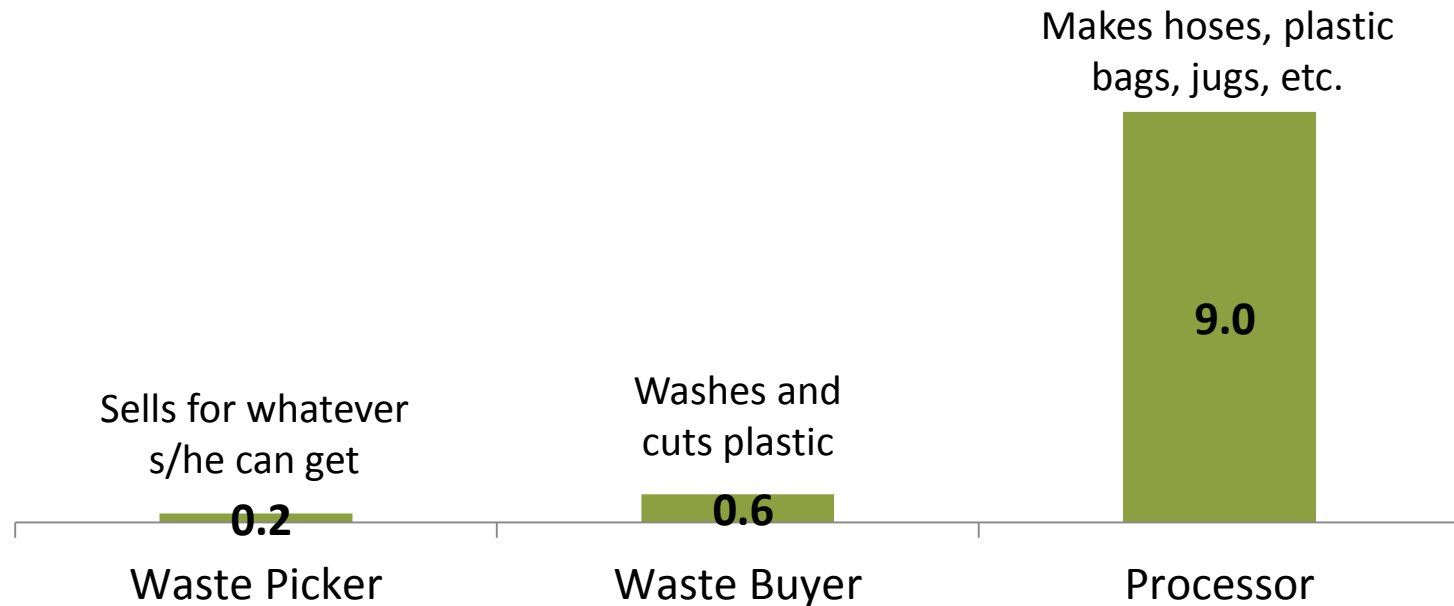
Our model triples waste picker wages, eliminates exploitation, and provides better working conditions

	Status Quo	With Waste Ventures
Waste Picker Daily Income	<u>Sale of Recyclables: \$1.50</u> TOTAL: \$1.50	Household Collection: \$1.50 Sale of Recyclables: \$2.00 Sale of Compost: \$0.50 <u>Sale of Carbon Credits: \$0.50</u> TOTAL: \$4.50
Waste Picker Well-Being	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • Company Ownership • Enforced Protective Gear Policy • Formalization of Role

- Waste Pickers may now sell recyclables to **Waste Picker Company-owned recycling facility providing fair recyclable prices** compared to kabaadi-wallahs (scrap dealers)
- Waste Pickers also benefit from **profit generated from their' company's processing** of these recyclables as they now have access to **chipping and mold equipment**
- **New company earnings from composting and carbon credits** bolster waste picker daily earnings

Waste pickers risk being financially indentured to the scrap dealers

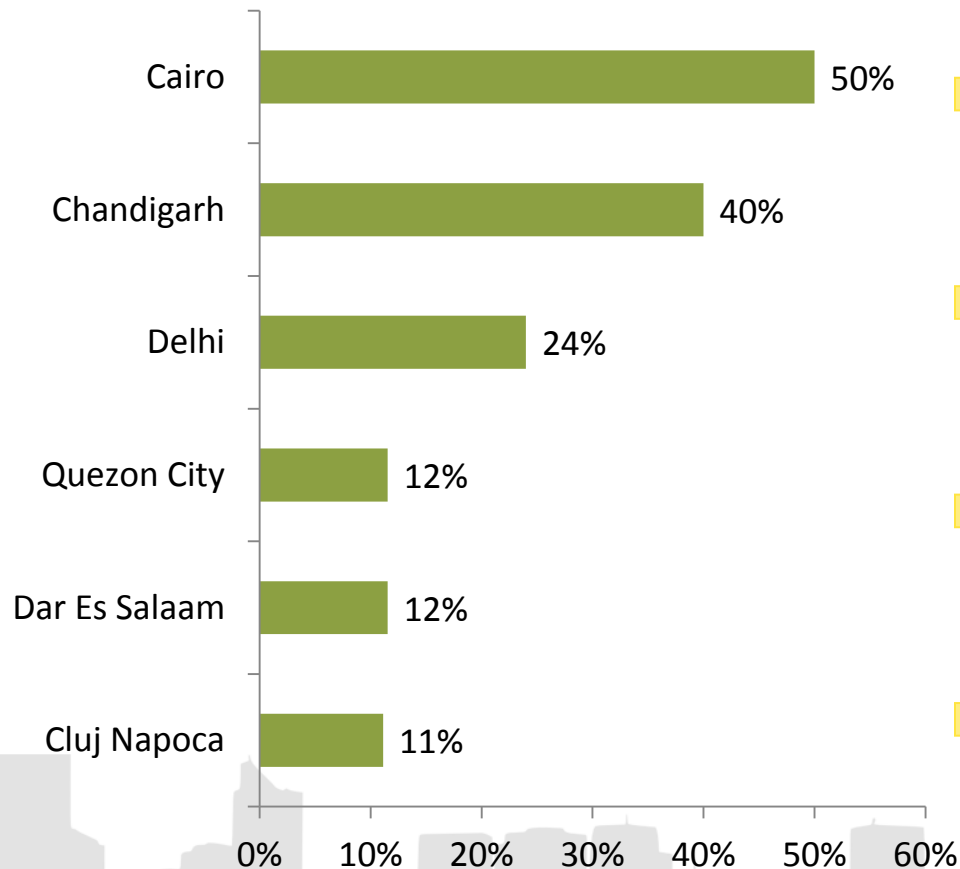
Typical returns on 1 kg of plastic (USD)



- Waste pickers only make an average of **\$1.50 per day**
- The irregularity of waste pickers' access to income often results in **reliance on scrap dealers for cash flow and credit at loan shark interest rates**

Due to the economic desperation of their parents, there is a high proportion of children working in the sector

Child waste pickers as % of total waste pickers

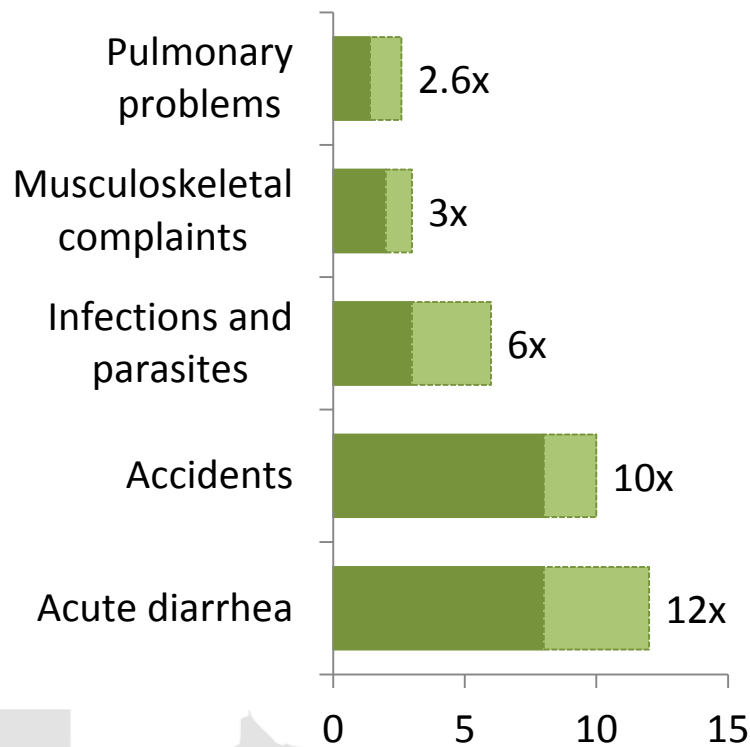


Waste Ventures' model will reduce child involvement in waste picking activities by:

- Increasing income generation which takes the pressure off the child to contribute to family income
- Raising the status of the work of waste pickers
- Institutionalizing and formalizing the sector, which makes it possible to enforce regulation against child labor
- Requiring children of waste picker employees to be enrolled in school

Unprotected exposure causes significantly greater incidence of health ailments to waste pickers than average laborers

Magnitude of reported health issues in waste picker populations relative to baseline populations



Due to where they work, waste pickers..

- Inhale particulate matter, bio-aerosols, and volatile organic compounds
- Carry heavy loads and travel long distances by foot
- Work near trucks on the dumpsites, are exposed to frequent fires and waste slides
- Consume food waste, receive punctures or cuts from glass and other sharp objects



Waste Ventures provides protective gear such as gloves and face masks as well as tricycles and auto rickshaws. Most significantly, Waste Ventures' model make it possible for waste to be processed without working on dumpsites

Appendix II

TEAM PROFILES



Waste Ventures Team (1 of 2)



Parag Gupta
Founder

Having conducted due diligence globally on hundreds of social entrepreneurs as Associate Director of the Schwab Foundation, Parag was drawn to the urgency and impact of solid waste management. He created a global blueprint for commercially-viable developing world solid waste management with local partners and field staff which formed the basis for Waste Ventures.

- Parag also founded IDEAS which applied venture philanthropy principles to advocacy outcomes in developing countries and was an Echoing Green Finalist.
- Previously, he was a management consultant at the Bridgespan Group advising foundation and nonprofits. He also was involved in creating a specialty coffee sector for Technoserve Nicaragua.
- Parag received his Masters from the Harvard Kennedy School, his Bachelors from the University of Chicago, and was a World Economic Forum Global Leadership Fellow where he developed Base of Pyramid content.
- Linguistically, Parag gets by comfortably in Hindi, French, and Spanish-speaking countries



Dr. Sanjay K Gupta

Sanjay has more than a decade experience in waste management, recycling and livelihood issues.

- He has a Ph. D from Jawaharlal Nehru University, New Delhi and has been trained in Integrated Process in Water and Sanitation in Sweden, Egypt and Netherlands.
- He has worked as an Advisor and Consultant with WSP-World Bank, USAID, Care India, Swiss Red Cross and Waste Netherlands.
- He has established more than 120 small and medium enterprises in waste management services and recycling resource centre, keeping the informal sector livelihood as focus generating more than 6000 employment.
- He also has strong advocacy skills and has influenced several state government policies on waste management and out sourcing of these services.
- He has written several papers internationally published on waste issues, spoken in more than 20 countries and co-authored of books like Millennium Development Goals and Solid Waste Management and the award-winning Status of Solid Waste in World Cities for UN-Habitat.

Waste Ventures Team (2 of 2)



Siva Cotipalli

Siva brings in close to 9 years of experience in social enterprise and private sectors.

- Before joining Waste Ventures, Siva co-founded dhanax, a social lending platform focused on urban poor in India.
- Previously, he worked for Oracle Corporation and Infosys in product marketing and technology consulting roles.
- Siva is a TEDIndia Fellow, a nominee for Pepsi-MTV youth icon of India and widely quoted in Indian media for his views on building businesses for Base of the Pyramid.
- Siva holds a MBA from IIM-Kozhikode and B.E (Hons) from BITS,Pilani.



Tiffany Talsma

Tiffany is an internal management consultant that supports the team in development of Waste Ventures' rapid growth strategy.

- Tiffany brings with her experience in M&A and strategy consulting for deal due diligence and business improvement projects in the US and Germany.
- She holds a BBA from the Michigan Ross School, where she led development projects such as advising a community coalition in East Detroit on their growth strategy and developing an ESL program for under-served communities in Panama.
- Tiffany has a passion for the informal waste management sector which developed from her childhood in Nigeria and work with the waste pickers of the Guatemala City landfill.



Linus Kendall

Linus joined Waste Ventures in August 2010 as Social Business Fellow through Artemisia and AIESEC.

- Linus brings experience ranging from non-profit management, technology consultancy as well as incubation and promotion of clean technologies and a prior founder of a company.
- Before joining Waste Ventures, Linus worked as the CEO for the Swedish chapter of the global non-profit organization AIESEC.

Appendix II

Waste Ventures Board



Geoff Davis
Chair Board

From 2001 - 2008 Geoff was CEO of the microfinance accelerator Unitus, which he guided from start-up to a global leader in microfinance.

- He is also the co-founder of the Unitus Equity Fund, the first commercial microfinance venture capital fund and a founding investor in SKS Microfinance, the world's largest MFI institution.
- Prior, he founded a microfinance program in Mexico, was part of the start-up team at Grameen Foundation and launched Grameen Investment, a microfinance investment fund.
- Geoff is a Young Global Leader by the World Economic Forum and Entrepreneur of the Year by Ernst & Young.



Dr. Harish Hande
SELCO

Dr. Hande is an engineer and a renewable energy entrepreneur with extensive experience meeting the energy requirements of the health, education and water sectors.

- He is the co-founder of SELCO-India, the first solar energy service company in India. Since 1995, SELCO-India has installed over 65,000 PV systems.
- His experience includes a large number of health, education and water related projects. He also worked on hybrids, such as PV-grid hybrids and co-founded and directed S3IDF-South Asia.
- Dr. Hande brings both technical, practical field and commercial expertise for fostering sustainable projects.



Dr. Pamela Hartigan
SE Luminary

Dr. Hartigan leads social entrepreneurship programming at the University of Oxford.

- Prior, Dr. Hartigan spent eight years as the first Managing Director of the Schwab Foundation for Social Entrepreneurship, a sister organization of the World Economic Forum where she was also on the Forum Managing Board.
- A graduate of Georgetown, she also holds a Ph.D. in Cognitive Psychology. Dr. Hartigan is a frequent lecturer on social entrepreneurship and innovation at graduate schools of business in the USA, Europe and Asia, and is an Adjunct Professor at the Columbia Business School.
- She co-authored *The Power of Unreasonable People: How Entrepreneurs Create Markets to Change the World*.

Waste Ventures Advisors



Dr. Vikram Akula
SKS Microfinance

Dr. Akula founded SKS Microfinance, the largest microfinance institution in India. Vikram is credited with one of the fastest growth rates in the microfinance sector and one of the most commercially successful.

- Previously a management consultant with McKinsey & Company, Vikram has over a decade of work and research experience in microfinance.
- He was a Fulbright Scholar in India, during which he coordinated an action-research project on providing micro-credit for food security.
- He has also worked as a community organizer with the Deccan Development Society in India.
- He holds a B.A. from Tufts, an M.A. from Yale, and has a Ph.D. from the University of Chicago. His Ph.D. dissertation focused on the impact of microfinance.
- He has received several awards for his work with SKS, including the Schwab Social Entrepreneur of the Year and Time 100 Most Influential People.



Waste Concern
Sector Leader

Waste Concern is the first company to operate a CDM-registered compost project in the world. It was established in 1995 and has major successes in reducing emissions in several cities around Bangladesh, Sri Lanka and Vietnam by creating compost and selling it to fertilizer companies.

- Thus far, Waste Concern's model of managing waste has reduced more than 18,000 tons of CO₂ emissions each year in Bangladesh and generated 414 new jobs for the urban poor.
- It is helping to reduce the 52% of generated solid waste that remains uncollected in Dhaka.
- Waste Concern also regularly consults to UN bodies and governments on CDM processes and solid waste composting.



Amitabha Sadangi
*Director,
Waste Ventures IN*

Amitabha Sadangi is the CEO of IDE-India. He was born in a village in Orissa in a family that earned less than 20 cents a day.

- Having previously worked at Oxfam, he joined IDE in India and Sri Lanka before launching its strategy and research as an autonomous body in India as IDE – India.
- He is a recipient of the Ashden Awards for technology innovations.