Informal waste pickers recycle an estimated 600 tonnes per day in Bangalore, saving money for the local government and reducing greenhouse gas emissions. But they are treated as thieves, exposed to hazardous working conditions, and have little access to government services.

We have been helping the city implement a decentralized waste management approach that provides tremendous opportunity to: increase the amount of waste being recycled; create jobs and income; and integrate informal sector workers into these activities. We have created or supported seven waste recycling centers in Bangalore that now recycle 31.5 tonnes of waste per month and provide 70 direct jobs and income opportunities for waste collectors. These activities have created additional employment up- and downstream in the collection and processing of waste. Waste collection and recycling services are now provided to more than 7,000 households.

We also take significant steps to support the rights, dignity, recognition, and security of the estimated 15,000 informal waste collectors in the city. To this end, we helped the Bangalore local government become the first to issue identity cards to waste pickers that authorize their work in the city. To date, 6,031 informal waste collectors have received these cards. We have also helped organize 2,500 waste collectors into an association called Hasirudala (“green force”) to advocate for better working conditions and access to government services.

The following report captures our achievements in 2012.
Table of Content
2012 Annual Report

PROGRAM ACTIVITIES
Outcomes and Impacts 3 - 5
Objectives and Achievements 6 - 7

PROGRAM SPOTLIGHTS
A Roadmap for Integration - Legitimizing informal waste collectors in the city 8
Leveraging Resources - How Caterpillar’s grant helped us leverage resources 9
The Waste Web - Navigating the formal and informal waste systems 11
Identity Economics - People’s identity and economic well-being 12
Re-Branding Scrap Shops - Personal identity and customer perceptions 13
Design Thinking - Form meets function 14
Accessing Government Services - Demands and response 15
When the System Broke Down - and we became the model for the city 16
Multimedia - News and Videos 17
Research and Publications - Studies, Reports and Analysis 18
2012 Project Activities
Outcomes and Impacts

We have improved solid waste management and recycling in Bangalore by developing infrastructure and services for a decentralized system.

1. Increased solid waste recycling in Bangalore by promoting and operating recycling centers.

Seven waste recycling centers were operational as of 2012 which managed 31.5 tonnes per month (26 tonnes of dry waste and 5.5 tonnes organic waste). Community awareness is ongoing and will bring the center to full capacity of 53 tonnes per month and service more households. Our largest waste management center, Kasa Rasa 2, was inaugurated on June 9th 2012 and started operating on June 20th with a capacity of 18.5 tonnes per month.

2. Ensured waste collectors are employed at recycling centers.

Currently, 70 waste recyclers are engaged directly at the recycling center (33 recyclers employed in seven recycling centers and 37 waste collectors are employed in different establishments for waste management). About 25 waste collectors regularly sell recyclables to our centers and this is increasing.

3. Provided public awareness and education on importance of proper waste disposal, segregation of waste at source, and recycling.

Three slum and low-income communities consisting of 4,000 households received house-to-house instructions on the proper disposal of waste, segregation at source and waste management services. Our outreach is also city wide with heightened visibility and messaging through media outlets.

4. Supported waste collection and recycling services in slums and low income neighborhoods.

Our local partners CSA and Sahaas work in collaboration with the Municipal Corporation to organize the waste collection and recycling work for 4,000 households in slum and low-income communities. In addition, our recycling centers are collecting waste from 800 households in Anand Nagar, 2021 households in Dumlur, and 319 households in Koramangala.

Recycling services are also being provided to bulk waste generators – like apartment complexes, institutions, corporations and small commercial establishments. Collecting waste from bulk generators – which typically discard higher quality recyclable materials than households – helps waste management centers become economically viable.

5. Established standard operating procedures for recycling centers.

Global Communities prepared Standard Operating Procedures (SOP) for both dry and wet waste recycling centers. The SOP will be used to improve the design of the upcoming BBMP dry waste collection centers and for NGO/CBOs to operate the centers better. This process will also help improve the financial viability and efficiency of the centers.
Outcomes and Impacts

6. Introduced equipment and low cost machinery that improves occupational health, safety and efficiency of recycling for informal waste collectors.

Global Communities introduced equipment and low cost machinery that improves occupational health, safety and efficiency of recycling for informal waste collectors. With our local partner MSSS, we designed and built a 12 foot conveyor belt where waste can be sorted, thereby increasing the efficiency of segregation. We also designed and built a baler made of long lasting MS steel and equipped with a lever that compresses the material and can bale between 18 to 25 kgs. of material at a time. Baling materials increases the amount of recyclables that can be stored by occupying less space. Both of the tools help the center run more economically and efficiently.

VIDEO: News9 Segment on Dumlur Recycling Center

We have improved the livelihoods of informal waste recyclers.

1. Mobilized waste collectors throughout the city to gain access to identity cards provided by Bangalore Municipal Corporation (BBMP);

Global Communities organized city wide mobilization and enumeration of waste pickers using a network of 5 local NGOs. 6,031 photo ID cards have been issued by the Bangalore Municipal Corporation (BBMP) thus far. The enumeration and distribution of ID cards is an ongoing process. Efforts are continuing to identify waste pickers without cards and to distribute IDs to them.

2. Established collectives of informal waste collectors to collect and sell recyclables from bulk waste producers.

Global Communities achieved another significant milestone this year by helping form a city waste collectors association called Hasirudala (meaning “green force”). The association consists of informal workers collectors and itinerant buyers of waste in Bangalore. Around 2,500 waste pickers have become members thus far and this number is growing. By forming an association, this invaluable labor force can work together to advocate for better working conditions and access to government services. Leadership within the organization has been selected by their members, empowering them to take ownership and make decisions that affect their organization and their livelihood.

We have organized 8 collectives consisting of 33 informal waste collectors thus far that will work together to recycle waste. By Feb 2013, 15 more collectives will be formed. Introducing the concept of sharing income among members has been an obstacle to forming collectives since it is very new to them. Thus, it may take longer to form them into collectives as envisaged. We anticipate creating 8 additional groups in the next 5 months.

3. Provided linkages to social and financial services for waste collectors.

In our work with waste collectors and other groups that work with these workers, we have identified four key issues that waste collectors would like addressed: better working conditions; security of livelihoods; recognition as “workers”; respect, dignity and social security. We are working actively to connect waste collectors to government services like health care. This is advancing but taking time to navigate the government procedures.

4. Built the capacity of informal waste collectors that operate recycling centers and work in the vicinity of recycling centers.

Currently 33 waste pickers are employed in dry waste collection centers (DWCC) and 37 with bulk generators in the city either in a collective group or as individual workers. Continuous efforts are being made to link more waste pickers into upcoming DWCCs and bulk generators. 40 individuals are participating in 3 self help groups.

5. Provided access to training programs for waste pickers and other informal sector workers

To help build waste recyclers’ skills, we identify a provider to develop training modules and deliver training. To help sustain the training we also trained a pool of trainers from grassroot NGOs which are identifying, mobilizing and engaging the waste collectors.

121 waste collectors have participated in our trainings series which focused on improving their livelihood and incomes through the following:

a. Improving segregation of recyclables and providing value additions; sorting materials and reducing volumes;

b. Life skills and entrepreneurship skills to develop their
Outcomes and Impacts

- abilities to self-direct their futures and how to work with bulk generators of waste (i.e. apartments, large businesses and institutions.)
- Exposure visits for waste collectors and attendance in local and regional gatherings.
- How to access and address governments services and support.

Global Communities has also reached out to owners and operators of scrap shops this year by engaging them through the Hasirudala association. They have demonstrated their desire to organize themselves and participate in the association, thereby facilitating enumeration and gaining legitimacy in the city. Global Communities organized a training session with 130 scrap dealers.

Bangalore Ward Map with Global Communities Supported Recycling Centers
## 2012 Objectives and Achievements

### Objective 1: Improve solid waste management and recycling by developing infrastructure and services for decentralized solid waste management

<table>
<thead>
<tr>
<th>Activity</th>
<th>Outputs</th>
<th>Outcomes</th>
<th>No. Beneficiaries</th>
<th>Location</th>
<th>Targets reached*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Increase solid waste recycling in Bangalore by promoting and operating recycling centers.</td>
<td>7 recycling centers fully operational</td>
<td>7 recycling centers will recycle 29 tons of organic waste and 10 tons of dry waste per month</td>
<td>4,000 households</td>
<td>Rajendranagar, Ambedkarnagar, Ejipura, Koramangala, Hebbal, Shanthi Nagar, Nayandahalli</td>
<td>7 centers are operational. 42.5 tonnes waste per month managed in 7 centers. This can increase to 53 tonnes of total capacity at these centers. More than 7,000 households receive waste management services through seven recycling centers, which include slums and low- and middle-income communities.</td>
</tr>
<tr>
<td>2. Ensure waste collectors are employed at recycling centers.</td>
<td>Jobs and/or income will be provided to over 100 informal waste collectors</td>
<td>Waste collectors are employed and/or gaining income from “formal” sector activities, previously not sanctioned</td>
<td>80 informal waste collectors directly employed; 100 informal waste collectors selling waste to recycling centers</td>
<td>Rajendranagar, Ambedkarnagar, Ejipura, Koramangala, Hebbal, Shanthi Nagar, Nayandahalli</td>
<td>133 waste collectors have been hired to work directly at our recycling centers or at facilities on bulk waste producers, like university campuses and commercial complexes. Over 100 waste pickers are selling recyclables to our recycling centers.</td>
</tr>
<tr>
<td>3. Provide public awareness and education on importance of proper waste disposal, segregation of waste at source, and recycling.</td>
<td>Public awareness materials</td>
<td>3 slum Communities (4,000 households) have a greater awareness on proper waste management systems and services</td>
<td>4,000 households</td>
<td>Rajendranagar, Ambedkarnagar, Ejipura, Koramangala, Hebbal, Shanthi Nagar, Nayandahalli</td>
<td>Through a household survey, we confirmed that there is greater awareness and practice of segregation and recycling amongst 7,000 households where we conducted public awareness campaigns.</td>
</tr>
<tr>
<td>4. Support waste collection and recycling services in slums and low-income neighborhoods.</td>
<td>3 recycling centers operate at full capacity and Parivartha enterprise is fully operational</td>
<td>2 slum communities (2,000 households) and 1 low-income (2,000 households) community receive waste management/recycling services.</td>
<td>4,000 households</td>
<td>Rajendranagar, Ambedkarnagar and Ejipura</td>
<td>More than 7,000 households receiving waste management services in slum and low- and middle-income households.</td>
</tr>
<tr>
<td>5. Establish standard operating procedures for recycling centers.</td>
<td>Managers and staff trained on operating procedures</td>
<td>Recycling center operations can sustain largely on revenue.</td>
<td>4,000 households</td>
<td>Rajendranagar, Ambedkarnagar, Ejipura, Koramangala, Hebbal, Shanthi Nagar, Nayandahalli</td>
<td>Standard Operating Procedure document has been promoted with NGOs and BBMP.</td>
</tr>
<tr>
<td>6. Introduce equipment and low-cost machinery that can improve occupation health, safety and efficiency of recycling for informal waste collectors</td>
<td>New tools for improving solid waste handling introduced</td>
<td>Recyclers at facilities have improved working conditions compared to working independently</td>
<td>100 waste collectors working in recycling centers</td>
<td>Rajendranagar, Ambedkarnagar, Ejipura, Koramangala, Hebbal, Shanthi Nagar, Nayandahalli</td>
<td>133 waste collectors have been hired to work directly at our recycling centers or at facilities of bulk waste producers, like university campuses and commercial complexes. Low cost equipment like conveyor belt for easy segregation and baler for compressing the materials were introduced in recycling centers, which reduced the burden for workers.</td>
</tr>
</tbody>
</table>
## 2012 Objectives and Achievements

### Objective 2: Improve the livelihoods of informal workers, specifically waste recyclers

<table>
<thead>
<tr>
<th>Activity</th>
<th>Outputs</th>
<th>Outcomes</th>
<th>No. Beneficiaries</th>
<th>Location</th>
<th>Targets reached*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Establish collectives of informal waste collectors to collect and sell recyclables from bulk waste producers.</td>
<td>40 Collectives of waste pickers</td>
<td>40 Collectives (at least 200 members in total) collect and sell recyclables</td>
<td>200 informal waste collectors</td>
<td>Locations throughout the city</td>
<td>80 individuals waste recyclers are engaged in collectives but this number is growing steadily as more individuals are trained and additional arrangements are made with recycling centers and bulk waste generators to place collectives at these locations. Approx. 4,500 waste pickers have become members of Hasirudala Association.</td>
</tr>
<tr>
<td>2. Mobilize waste collectors throughout the city to gain access to identity cards provided by BBMP</td>
<td>Identity cards</td>
<td>1,000 Informal waste collectors receives municipal identity cards,</td>
<td>1,000 Informal waste collectors</td>
<td>Throughout Bangalore city</td>
<td>BBMP issued 6,727 ID cards; and distributed 2,867 cards to waste pickers thus far. Approx. 4,500 waste pickers have become members of Hasirudala Association.</td>
</tr>
<tr>
<td>3. Provide linkages to social and financial services for waste collectors and other informal sector workers.</td>
<td>Bank accounts, savings, health insurance, scholarships, other services</td>
<td>1,000 informal waste collectors and informal sector workers gain access to health insurance, establish bank accounts and/or savings, or other</td>
<td>1,000 informal sector workers</td>
<td>5 Municipal wards Bangalore</td>
<td>Convergence of social security schemes for waste pickers is progressing and has almost reached 1,000 beneficiaries. The formation of the Hasirudala Association of waste pickers is helping advance this activity. 390 families enrolled in a health program (Vajpayee Arogyashree): 170 people applied for Adhaar card and 70 applied for pension programs. Other families applied for children’s enrolment in school under the Right to Education act.</td>
</tr>
<tr>
<td>4. Build the capacities of informal waste collectors that operate recycling centers and work in the vicinity of recycling centers.</td>
<td>10 self help groups comprised of 10 members each</td>
<td>10 Self Help Groups established among informal waste collectors (at least 100 members) and have established micro credit and/or bank linkages</td>
<td>100 informal waste collectors</td>
<td>3 slum communities in JC Road Market area and recycling centers in Yelahanka, Freedom park, HSR Layout, Marrapanpalya, Gottigere, and Jayanagar.</td>
<td>6 additional dry waste recycling centers are being managed by waste collectors who are members of Hasirudala. The locations of these centers are Yelahanka, Freedom park, HSR Layout, Marrapanpalya, Gottigere, and Jayanagar. These locations provide employment for over 80 recyclers who organize and operate as collectives. 40 contract waste collectors (those that work for BBMP) are part of self help groups.</td>
</tr>
<tr>
<td>5. Provide access to training programs for waste pickers and other informal sector workers</td>
<td>Training programs developed and delivered</td>
<td>400 individuals attend training courses</td>
<td>400 individuals</td>
<td>5 Municipal wards Bangalore</td>
<td>Over 400 people received training.</td>
</tr>
</tbody>
</table>
A Roadmap for Integration
Legitimating informal waste collectors in the city

Over the last few decades, there has been a slow but gradual recognition of the contribution of waste pickers in both Indian law and policy. Noteworthy amongst these are the National Environment Policy, 2006; National Action Plan for Climate Change; Municipal Solid Waste (Management & Handling) Rules 2000, Child Labour (Prohibition & Regulation Act) 1986, and the Unorganised Workers’ Social Security Act 2008.

Most recently, the Plastic Waste (Management and Handling) Rules, 2011 and the Draft Rules of Municipal Solid Waste 2011 asked the urban local bodies (ULBs) to engage waste pickers in the collection of plastic and other waste. However, these rules do not provide details about their implementation.

To provide an impetus for Bangalore’s local government to implement these policies, Global Communities helped submit an affidavit in a Lok Adalat which provided a roadmap for integrating waste collectors into the city systems and for protecting their safety while rewarding their contributions.

Lok Adalat is a system of alternative dispute resolution developed in India, roughly translated as "people’s court". India has had a long history of resolving disputes through the mediation of village elders. The system of Lok Adalats builds off India’s long history of resolving disputes through mediation by village elders. The Lok Adalats is based on the principles of Mahatma Gandhi and is a non-adversarial system, whereby mock courts (called Lok Adalats) are held by the state authorizes to deal with all civil cases, matrimonial disputes, land disputes, property disputes, and labor disputes.

Our submission of an affidavit to the Lok Adalat revealed that a division of the high court of Karnataka encouraged high impact organizing. Thereafter, a directive was given by Lok Adalat to Bruhat Bengaluru Mahanagara Palike (BBMP) to register waste pickers and enumerate scrap dealers in the city. Global Communities leveraged this directive to help the city define the processes for enumeration and also by supported the organizing of waste pickers in the city into the Hasirudala association.

The enumeration of informal waste pickers is a very strong step forward for legitimizing these workers in the city and ultimately integrating them into formal waste management systems. This has been an evolving partnership with BBMP, proceeding at many levels with many stakeholders. It has required working out details from administrative and regulatory procedures along with hands-on piloting and rolling out solutions. Ultimately, these actions helping BBMP demonstrate leadership in the country and a model for other cities.

The Affidavit Recommendations
1. Register and provide photo-identity cards to ragpickers/ wastepickers and Itinerant waste buyers by the Municipal Commissioner of BBMP...
2. Provide financial, human and infrastructural support to register all wastepickers within BBMP limit.
3. Provide support to registered organization/s of wastepickers for organizing, training
4. Provide spaces in every neighbourhood for undertaking composting, biogas and segregation...
5. Formulate welfare measures for waste pickers and provide for them in the municipal budget.
6. Promote and provide capital and infrastructure costs from the municipal budget for micro-waste collection and processing enterprises...
7. Facilitate issuance of Trade license where appropriate.
8. All registered waste pickers should be eligible for benefits under government schemes irrespective of BPL status.
9. Ensure organisations of waste pickers are represented on the District Solid Waste Management Monitoring Committee.
10. Ensure all mixed waste is first segregated for recovery of recyclable ...
11. Ensure that all waste generators must pay the service fee as prescribed in the circular SHGSR...
12. Encourage the presence of Senior Police officers and ensure the sensitization of police personnel to the work undertaken by wastepickers, ...
13. Regularly monitor and quantify the reduction in CHG as a result of resource recovery
14. Include wastepickers in the collection centers for plastic that is proposed in the Plastic Waste (Handling and Management) Rules, 2011...
15. Include representatives of wastepickers in any discussion and decision made by BBMP on their behalf
With the funding support of Caterpillar, we got the Bangalore Municipal Corporation (BBMP) to donate land for four recycling centers, one of which was constructed in 2012, called Kasa Rasa 2. The Kasa Rasa 2 center also utilized approximately $10,000 from Bosch’s local CSR activities to increase the size of the center by approximately 500 square feet. Bosch funds were routed through our local NGO partner Saahas. We also got the BBMP to pay for the construction of two additional dry waste collection centers. Global Communities is using Caterpillar funds to pay for six months of operational costs for these centers in order to kickstart their operations.

Global Communities helped BBMP become the first urban local body in the country to institutionalize the process of registering informal waste collectors, to which they have dedicated human and material resources to complete the registration. Global Communities is now in discussion with BBMP about their plans to provide protective gear for waste collectors and other opportunities to better their livelihoods.

Radio Active is Bangalore’s first Community Radio station that aims to use technology for the benefit of the common good. They have launched an Urban Waste Management Program that is designed to sensitize and develop a whole community approach to waste management, recognizing that it is important for the local public to comprehend and realize the complexity of the world they live and make informed decisions and participate in the process of environmental protection. Radio Active is helping reach out to waste pickers that may become part of the Hasirudala association and also conducting awareness programs on the importance of waste segregation.
Kasa Rasa 2
new recycling center

Rainwater harvesting

Natural Ventilation

Natural Light

Efficient Operations

Recycled, Low Energy Materials
The Waste Web
Navigating the formal and informal waste systems

Global Communities has commissioned various studies and meetings to analyze the complex workings and connections between city waste and the informal and formal sector workers, from households to ragpickers, municipal collectors, and waste contractors. All our examinations have continually highlighted that the formal sector is supported by an extremely robust informal sector.

The formal sector solutions that cities across India have employed focus on collecting and shipping waste to landfills. But this model overlooks the existing recycling that is happening in the city by the informal sector.

The decentralized waste management approach that we have been promoting and demonstrating provides a tremendous opportunity for integrating the informal sector. These are the people who work with waste materials everyday and are essentially the experts on material identification, value, and recovery.

“Experience shows that it can be highly counterproductive to establish new formal waste recycling systems without taking into account informal systems that already exist. The preferred option is to integrate the informal sector into waste management planning, building on their practices and experience, while working to improve efficiency and the living and working conditions of those involved.”

How recyclables reach the Kabbadiwallas and how it does not.

Part of the “Recycling Garo” project.

1. Maids and office staff sell high value waste like bottles, paper, cardboard, glass, plastic to the kabbadiwallas on their way home.

2. Housewives sell newspapers and bottles to the kabbadiwallas coming to the door.

3. Kabbadiwallas go around and collect waste from homes and businesses.

Large companies have not evolved a systematic collection system from small generators. Small e-waste collectors need support to set up safety standards. Toxic waste. Medical waste is the same.

E-waste

Agency

High Value Items leak

High Value items recycled

Low Value Items leak

High Value Items leak

Low Value Items leak

“Experience shows that it can be highly counterproductive to establish new formal waste recycling systems without taking into account informal systems that already exist. The preferred option is to integrate the informal sector into waste management planning, building on their practices and experience, while working to improve efficiency and the living and working conditions of those involved.”

The Waste Web
Navigating the formal and informal waste systems

Global Communities has commissioned various studies and meetings to analyze the complex workings and connections between city waste and the informal and formal sector workers, from households to ragpickers, municipal collectors, and waste contractors. All our examinations have continually highlighted that the formal sector is supported by an extremely robust informal sector.

The formal sector solutions that cities across India have employed focus on collecting and shipping waste to landfills. But this model overlooks the existing recycling that is happening in the city by the informal sector.

The decentralized waste management approach that we have been promoting and demonstrating provides a tremendous opportunity for integrating the informal sector. These are the people who work with waste materials everyday and are essentially the experts on material identification, value, and recovery.

“Experience shows that it can be highly counterproductive to establish new formal waste recycling systems without taking into account informal systems that already exist. The preferred option is to integrate the informal sector into waste management planning, building on their practices and experience, while working to improve efficiency and the living and working conditions of those involved.”
Identity Economics
People’s identity and economic well-being

In our work with informal waste collectors, we have marveled at the kind of tacit knowledge about materials and processes that the informal sector has. We believe that this immense knowledge pool of the informal sector is largely unacknowledged. We have been trying to highlight their value, validate their role and help them be seen as “skilled labour” or “knowledge workers”, rather than merely “labour”.

Various studies have also documented the waste pickers’ contribution to the reduction of municipal waste handling costs, resource recovery, environmental conservation and climate change mitigation. The most notable study was completed by the Expert Committee on Solid Waste Management constituted by the Hon. Supreme Court of India. Even India’s 2008 National Action Plan on Climate Change lauded the informal sector as the backbone of India’s recycling system and affirmed its role in emissions abatement.

We have found that the formal and informal sector workers suffers not only due to our collective apathy and the manner in which we view the people and this sector; but also in the way the people and this sector view themselves.

Nobel Prize economist, George Akerlof and Rachel Kranton explained in their book, Identity Economics:

“People’s notions of what is proper, and what is forbidden, and for whom, are fundamental to how hard they work, and how they learn, spend, and save. Thus people’s identity— their conception of who they are, and who they choose to be— may be the most important factor affecting their economic lives. And the limits placed by society on people’s identity can also be crucial determinants of their economic well-being.”

Our training programs, the formation of Hasirudala association, and exposure visits have provided some powerful forces for improving the waste pickers livelihoods and their personal development. We have seen many improve their health and hygiene, find self empowerment, and improve their understanding of the larger waste management system and their value added within it. This growth has a very real impact on their abilities to self-direct their futures in their personal lives and occupations.

Nobel Prize economist, George Akerlof and Rachel Kranton explained in their book, Identity Economics:
Re-Branding Scrap Shops
Personal identity and customer perceptions

Scrap shops - small businesses that buy and sell recyclable "scrap" materials for a living - operate on the same economic principles of independent recyclers but they have physical space, "shops", usually on rent, where they can work from.

Like individual waste recyclers, there is an acute need among the scrap dealers to gain legitimacy and prevent harassment from police and to improve their perception amongst customers.

As part of our program we have piloted the “re-branding” of scrap dealers so their neighbors will treat them as respected service sector workers rather than as thieves and inferior. Below is a re-branded store front along with a business card and a website created for a scrap dealer now calling himself “recycling guru”. Neighbors can now schedule their recyclables to be picked up through this website which alerts the scrap dealer on his cell phone. This work was completed by our local partner Daily Dump.

NEW STORE FRONT: “RECYCLING GURU”

BEFORE: “Old Paper Mart”

BUSINESS CARDS

WEBSITE

MOBILE NOTIFICATION
Design Thinking
Form meets function

In many aspects of this program we have employed designers and design thinking to solve problems of form and function in waste management.

Collecting and sorting waste is a complex task ripe for design innovations. We employed designers in every aspect, including: carts to collect waste, tables and conveyer belts to sort the wast, balers to compact it, and the facilities to organize the operations.

Below is an example of how we redesigned the push cart used to collect waste.

The CEO of IDEO, a global design firm, has highlighted the benefits of design thinking:

"Design thinking is centered on innovating through the eyes of the end user and as such encourages in-the-field research that builds empathy for people, which results in deeper insights about their unmet needs. This focus helps avoid the common problem of enthusiastic “outsiders” promoting inappropriate solutions and ensures that solutions are rooted in the needs and desires of the community."

The off the shelf bins we first tried did not have handles and were too tall. So they could not transfer the bin content into the trucks (and the truck workers refused to unload the contents). We therefore designed the cart around their existing bins which had handles. As a result the cart was smaller.

We designed the cart with handles on both sides so that the cart could be maneuvered from the fixed wheel side or swivel wheel side. The handle is also used to hang recycling bags and other materials so we provided hooks to accommodate this.

We found that spoke wheels had a very thin tube, wore out quickly and suffered from the load. So we used heavy duty inflated rubber wheels. This wheel has worked well and moves the cart smoothly. We also used a swivel wheel in front with ball bearings that allow easier swiveling of the cart.
Accessing Government Services
Demands and response

Through our work with waste collectors and other groups that work with these workers, we have identified four key issues that waste collectors would like addressed:

1. Better working conditions
2. Security of Livelihoods
3. Recognition as “workers”
4. Respect, Dignity and Social Security

Organizing the Hasirudala association of waste collectors in Bangalore was a significant step forward in being able to create a collective voice and articulation of demands to the government.

The first initiative of the Hasirudala association has been to mobilize their communities and other stakeholders to highlight to the government their need for pension. At present, pensions are restricted to the elderly in the organized sector. But groups that are most in need of old age pension are largely in the unorganized sector. They are working towards getting a Universal and Non Contributory Old Age Pension System to be established immediately by the government with a minimum amount of monthly pension not less than 50% of minimum wage or Rs 2000/- per month, whichever is higher. Thus, our project is helping waste pickers raise their genuine demand to the local government.

Hasirudala took leadership in organising a public event called Pension Parishad in Karnataka on the 6th of August 2012 that requests universal access to pension. More than 1,000 waste pickers attended the event. In addition, eleven waste pickers participated in Pension Parishat in Delhi on the 29th of August 2012. This has increase the recognition of Hasirudala among other informal sector workers in Karnataka.

Pension parishad campaign in Bangalore today
Staff Reporter, The Hindu, August 9, 2012

Pensioners’ rally on August 9
Deccan Herald, Bangalore: August 8, 2012

Karnataka: People to hold ‘Pension Parishad’ demanding universalization of pension schemes
Tariq Abdul Muhaimin, NewsFirst, August 7, 2012
When the System Broke Down and we became the model for the city

BBMP (Municipal Corporation) has been dumping the city's garbage in the neighboring village Mavallipura landfill for years, which is managed by a private company. The Pollution Control Board recently closed down the landfill after the villagers staged opposition to the unscientifically managed landfill that is polluting their environment. Villagers did not allow BBMP trucks to enter the landfill near their neighborhood. For more than ten days garbage was not collected and began piling up in neighborhoods.

Troubled by this crisis, BBMP and other stakeholders, including media, turned to Global Communities and our partners to advise on new systems for the city on recycling and decentralised management of the municipal waste. This provided a very good opportunity for our partners and stakeholders to highlight the issues of waste pickers and promote decentralised waste management models.

The following newspaper articles and News9 TV interview with some of our partners discusses the issues around recycling and waste management in the city. It also highlights how our Kasa Rasa recycling center provides a model for the city.

These issues also gained the attention of Mr. Shri Suresh, Minister, Urban Development Department, Government of Karnataka who has given his assurance to integrate wastepickers into city’s waste management system.

They show how garbage can be managed locally
While Bangalore’s problem with solid waste management has snowballed into a crisis, a few important attempts by citizens and organisations to manage waste locally provide encouraging examples of how garbage can be managed efficiently.

Kasa Rasa Shows the Way
CityPlus Jagram, Published: 2012-10-05
“The recent news on Bangalore’s waste situation leading to a punishable mandate on segregation at source, has attracted many visitors to the decentralized waste management centres - Kasa Rasa in Ejipura and Kasa Rasa, near High Tension Wire (HTW) site in Koramangala.”

NEWS 9 Hasiru City Segment: From Garbage to Garden City
From Kasa to Rasa, Koramangala shows the way
S Madhusudan, DNA News, Jan 13, 2011

“Here’s a unique new plant that could change the very appearance of the city. At the Kasa Rasa (Kasa means waste in Kannada; rasa, essence) waste processing plant, which was inaugurated by Ramalinga Reddy, MLA, BTM constituency, at Koramangala, Ejipura, on Wednesday, all paper used is recycled. The roof of the plant is made of material that might otherwise have just been dismissed as a mound of garbage.”

Rag-pickers to get health benefits under Arogyasri
Staff Reporter, The Hindu, Jan 27, 2012

"Commissioner M.K. Shankarlinge Gowda said that rag-pickers could avail themselves of health benefits under the Vajpayee Arogyasri scheme with the identity cards. He said they would be distributed to the all rag-pickers in the city in phases.”

A dirty business goes green
Staff Reporter, The Hindu, June 8, 2012

“Here is a community that takes its garbage seriously. Koramangala is getting a new integrated waste management system – Kasa Rasa – which will make it easier for people of the area to recycle waste.”

An Effort to Not Let a Community Waste
Staff Reporter, The Hindu, June 20, 2012

“Ejipura has set out to become a model waste management locality with two units of waste segregation and treatment to its credit. “The city generates about 4,500 tonnes of waste every day and most of it is recyclable. There is no reason for garbage to lie on the streets,” says Wilma Rodrigues, founder of Saahas, which set up its first unit of waste segregation, ‘Kasa Rasa’, at Ejipura in 2011.”

BBMP By-Laws to Dispose Waste Give Hopes to Many Waste Management Players of Bangalore and Koramangala

“Rapid urbanisation and industrialisation have changed Bangalore. However, this metamorphosis has given rise to another mammoth problem - waste management in the city. Bruhat Bangalore Mahanagara Palike’s (BBMP) recent decision to implement a segregated waste disposal system has brought cheer to the waste management players in Kormangala. But will this decision really fulfil their dream of turning a pile of garbage into gold?”

Kasa Rasa Shows the Way
CityPlus Jagran, Date of Publishing: 2012-10-05

The recent news on Bangalore’s waste situation leading to a punishable mandate on segregation at source, has attracted many visitors to the decentralized waste management centres - Kasa Rasa in Ejipura and Kasa Rasa, near High Tension Wire (HTW) site in Koramangala.

They show how garbage can be managed locally

While Bangalore’s problem with solid waste management has snowballed into a crisis, a few important attempts by citizens and organisations to manage waste locally provide encouraging examples of how garbage can be managed efficiently.

Pension parishad campaign in Bangalore today
Staff Reporter, The Hindu, Aug 9, 2012

Pensioners’ rally on August 9
Deccan Herald, Bangalore: August 8, 2012

Karnataka: People to hold ‘Pension Parishad’ demanding universalization of pension schemes
Tariq Abdul Muhaimin, NewsFirst, August 7, 2012

Waste pickers help out BBMP

HASIRU CITY NEWS 9 SEGMENT: CHRIST COLLEGE PAPER UNIT
Sep 30, 2012

HASIRU CITY NEWS 9 SEGMENT: Home composting Sep 20, 2012
Research & Publications
Studies, Reports and Analysis

STANDARD OPERATING PROCEDURES
DECENTRALIZED SOLID WASTE MANAGEMENT

CHF International is an international development and humanitarian organization. Our mission is to help women and men living in urban and rural settings around the world improve their lives, health, and environment.

Founded in 1993, the Cooperative Housing Foundation (CHF) provides housing services to over 8 million people each year, empowering them to improve their lives and communities for a better future. Our expertise in social and environmental services with the communities we serve — engaging and involving them throughout the development process through a participatory methodology — helps create social and economic change.

CHF International began working in India in 2000, with the implementation of the Bhoomi Decision 1 Program ($12m) to support the CHF Program for International Development in three cities in Calcutta, Delhi, and Hyderabad.

In 2006, CHF International expanded its activities in sanitation, urban poverty, and clean water, with support from the BM and Maldives Benevolent Foundation, under a program called Clean Communities Achieving Health (CCAH) and with Water Project. The program is now being supported by the Department Foundation.

Sample Study of Informal Waste Pickers in Bangalore
September - October 2010

Sample Study of Informal Scrap Dealers and Recyclers in Bangalore
February - April 2011

Project Partners: CHF International

Global Communities
Partners for Good