



Women in Informal Employment
Globalizing and Organizing

**TECHNOLOGY & THE FUTURE OF *INFORMAL* WORK:
CASE STUDIES FROM INDIA AND SOUTH AFRICA**

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REMARKS

- ▣ **Research Project:** WIEGO and Practical Action, supported by Rockefeller Foundation
- ▣ **Preliminary Findings:** Ahmedabad, India & Durban, South Africa
 - Garment Makers
 - Waste Pickers
- ▣ **Preliminary Reflections**
- ▣ **Research Project:** Final Phase

RESEARCH PROJECT: PARTNERS, PURPOSE & FRAMEWORK

▣ Partners

- **Practical Action** – UK NGO: with **local offices** in each study city (Dhaka, Nairobi, Lima) plus **researchers from University of Edinburgh**
- **WIEGO** – global NGO & network: with **SEWA** in Ahmedabad, India; **Asiye eTafuleni & WIEGO team member** in Durban, South Africa; **local researcher & WIEGO team members** in Lima, Peru
- **Rockefeller Foundation**

▣ Purpose

- to research the key barriers to and opportunities for workers accessing the technology they need to participate in the economy + innovations that have or will directly or indirectly disrupt their livelihoods; and thereby
- to contribute to a better understanding of the link between technology justice and inclusive economies for informal workers.

▣ **Framework:** to explore positive and negative aspects, now and into the future, for the livelihoods of informal workers of four sets of technologies

- existing technologies: used by the informal workers in the study sample
- emerging technologies: used by other workers in the same sectors
- ICTs: used by informal workers in their work or for organizing
- city-wide technology systems: energy, transport and waste

RESEARCH PROJECT: WIEGO METHODS

- **Focus Groups:** 7 tools developed by WIEGO – modified version of Focus Group tools developed by WIEGO with urban scholar, Caroline Moser, for earlier WIEGO-led study in 10 cities of changes in the urban informal economy
- **Photo Documentation:** “4 Turns & Technological Asset” (4T & TA) – developed by urban architect-planner, Richard Dobson, of Asiye eTafuleni in Durban, South Africa
- **Phone Survey:** developed by WIEGO – with about 20 organizations of informal workers around the developing world to get a wider comparative understanding of technological change and adaptation in the informal economy
- **Profiles:** of 10 or so informal workers chosen from Focus Group sample – to get in-depth understanding of the dynamics of technological change and adaptation
- **Key Informant Interviews:** with local organizers, academics & other stakeholders – to help interpret and fill gaps in research findings

WIEGO METHODS: FOCUS GROUP TOOLS

- Tool # 1 – **which technologies do you use** in your work, and to do what? (participants draw technologies/tools on cards, sort the cards, and discuss them)
- Tool # 2a – **what technologies are emerging and disappearing** in your sector? (listing on chart)
- Tool # 2b – **who uses existing and emerging technologies**, workers like you or other workers? (putting answers in a 2x2 matrix)
- Tool # 2c – **which are the first, second and third most important technologies**, how do they impact, and how do you respond? (ranking matrix and causal flow diagram)
- Tool # 3 - **which city-wide system (energy, transport or waste)** has the biggest, second biggest and third biggest impact on your work? (drawing circles of varying sizes and adding 1, 2 or 3 of plus or minus signs within circles)
- Tool # 4 - **how important are different ICTs** in your work and for organizing? (ranking of intensity of use of different ICTs)
- Tool # 5 - **does the 1st, 2nd and 3rd ranked technology have a positive or negative impact on the quantity or quality of work** in your sector? (putting positive or negative answers in 2x3 matrix)

WIEGO METHODS: PHOTO DOCUMENTATION (4T & TA)

Notes

Uses AeT trolley, which requires repairs .



Notes

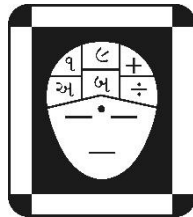


Rockefeller Foundation
Tech. and the Future of Work



IW: Ntombini Makhoba
Location: West Street
Activity: Cardboard Recycler
GPS Approx. : S 29° 51' 21.6 "
E 31° 00' 16.8 "
Fieldworker: Richard Dobson

Sheet Number: D.RE.12



Name : Deepaben Chavda
Location : Majoorgam,
Gitamandir
Activity : Garment
GPS : 23.014534, 72.59294
Field Worker : khyati,
Meena,Beena
Sheet Number : A3 /04

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RESEARCH PROJECT: WIEGO SAMPLE

- Focus Groups & Photo Documentation
 - 4 FG per sector x 5 workers per FG = 20 workers per sector x 4 sectors = 80 workers per city x 3 cities = 240 workers total (both women and men)

AHMEDABAD	DURBAN	LIMA
construction workers garment makers incense stick rollers waste pickers	barrow operators garment makers street vendors waste pickers	market porters market traders street vendors waste pickers

GARMENT MAKERS: AHMEDABAD & DURBAN

□ Key Differences:

■ place of work:

- own home (Ahmedabad)
- public space (Durban)

“Natural markets” of street vendors, especially around transport nodes = sites of other informal activities (e.g. waste picking & garment making in Durban)

■ status in employment:

- self-employed & sub-contracted (Ahmedabad)
- self-employed (Durban)

■ products:

- traditional garments (Ahmedabad)
- pinafores & modern garments (Durban)

■ buyers:

- firms/contractors & local customers (Ahmedabad)
- local customers, including commuters (Durban)

GARMENT MAKING TECHNOLOGIES: AHMEDABAD & DURBAN

	AHMEDABAD	DURBAN
EXISTING	electric sewing machines scissors tape measure needle & thread bobbin gadgets for special stitches iron screwdriver (for attaching gadgets) table & chair paper & pen	electric sewing machines scissors tape measure needle & thread cloth table (for cutting and sewing) & chair book & pen (to record orders)
NEW or DESIRED	electrical sewing machines: newer models interlocking machine	embroidery machine cutting machine

GARMENT MAKERS & ICTs: AHMEDABAD & DURBAN

ICT USED	AHMEDABAD	DURBAN
Mobile Phones	1 FG – work 1 FG – organizing	4 FG – work 3 FG - organizing
Internet	1 FG – work	2 FG – work 1 FG - organizing
Camera	1 FG – work	
Electronic Banking	1 FG – work	
Radio	2 FGs – work	1 FG - work
TV	2 FG – work	

GARMENT MAKING & URBAN SYSTEMS: AHMEDABAD & DURBAN

IMPACT	ENERGY	TRANSPORT	WASTE
LARGEST	2 Ahmedabad 2 Durban	2 Durban	
MEDIUM	2 Durban	1 Ahmedabad 1 Durban	1 Durban
LEAST		1 Ahmedabad 1 Durban	2 Ahmedabad 3 Durban
NEGATIVE	4 Durban	1 Ahmedabad 3 Durban	4 Durban
MIXED	2 Ahmedabad	1 Ahmedabad 1 Durban	
POSITIVE			

"Due to the existence of load shedding electricity is a problem, because while you are in the middle of your work electricity just shuts down." (Durban FG6)

WASTE PICKERS: AHMEDABAD & DURBAN

■ Key Differences:

■ place of work:

- individual routes + dumpsite (Ahmedabad)
- natural market of street vendors near central business district (Durban)

“Natural markets” of street vendors, especially around transport nodes = sites of other informal activities (e.g. waste picking & garment making in Durban)

■ waste products:

- mixed (Ahmedabad)
- cardboard & other waste (Durban)

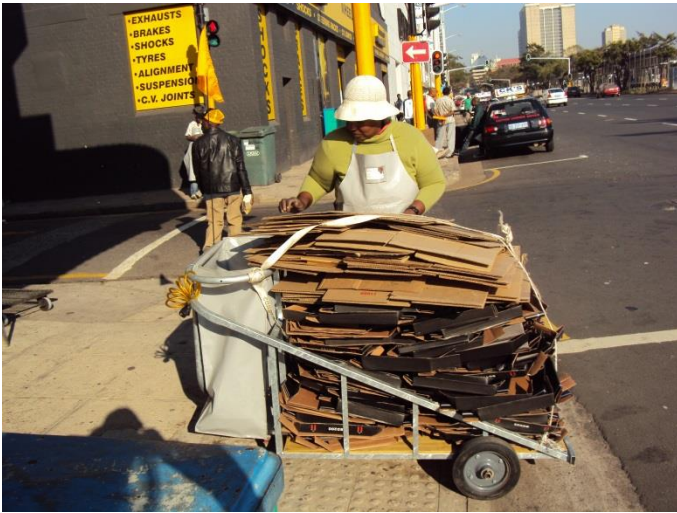
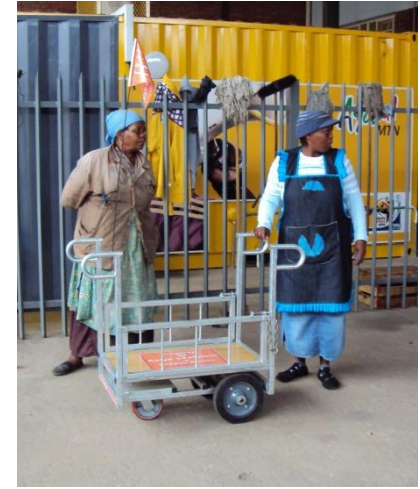
■ buyers:

- private middle-men in recycled goods (Ahmedabad)
- private middle men who drive around the inner city and Warwick Junction area to pick up reclaimed recyclables kerb-side from the waste pickers (Durban)

WASTE PICKING TECHNOLOGIES: AHMEDABAD & DURBAN

	AHMEDABAD	DURBAN
EXISTING	<p>All Waste:</p> <ul style="list-style-type: none"> bag/sack rope knife wooden stick rod with grip <p>Metal Waste:</p> <ul style="list-style-type: none"> rod with magnet <p>Protective Gear:</p> <ul style="list-style-type: none"> mask (esp. during monsoon rains) 	<p>All Waste:</p> <ul style="list-style-type: none"> rope trolley (4-5 types) <p>Most Waste: bag/sack</p> <p>Metal & Wood Waste:</p> <ul style="list-style-type: none"> hammer & pliers <p>Protective Gear:</p> <ul style="list-style-type: none"> gloves hat pinafore raincoat boots
NEW or DESIRED	<p>Bicycle rickshaw</p> <p>Auto rickshaw: 2 kinds</p> <ul style="list-style-type: none"> 2-seater mini-truck (“tempo”) 	









WASTE PICKERS & ICTs: AHMEDABAD & DURBAN

ICT USED	AHMEDABAD	DURBAN
Mobile Phones	1 FG – work 1 FG – work 1 FG – organizing	3 FG – work 2 FG - organizing
Internet		1 FG - work
Camera		
Electronic Banking		
Radio		1 FG - work
TV		1 FG - work

WASTE PICKING & URBAN SYSTEMS: AHMEDABAD & DURBAN

IMPACT	ENERGY	TRANSPORT	WASTE
LARGEST			4 Ahmedabad 4 Durban
MEDIUM	2 Ahmedabad 1 Durban	4 Ahmedabad 3 Durban	
LEAST	2 Ahmedabad 3 Durban	1 Durban	
NEGATIVE	2 Durban	4 Ahmedabad 1 Durban	2 Ahmedabad (no municipal bins in their areas) 1 Durban
MIXED	1 Ahmedabad	1 Durban	3 Durban
POSITIVE	3 Ahmedabad	2 Durban	2 Ahmedabad (collect waste from municipality bins)

"The DSW comes early and take all the waste including cardboard, so it is important for us that we must come before the DSW." (Durban FG11)

PRELIMINARY REFLECTIONS

- **Existing Technologies are Very Basic:** tools used by both sectors in Ahmedabad are more basic than those used in Durban
 - Garment Makers in Ahmedabad: less likely to have newer models of sewing machines or gadgets needed for specialized stitching
 - Waste Pickers in Ahmedabad: none owned or used trolleys
- **Desired Technologies are Also Quite Basic:**
 - Garment Makers – newer models of sewing machines
 - Waste Pickers – better forms of transport & space for storage

Affordability = key constraint: capital investment + energy requirement + maintenance

Public Transport – cannot be used to transport goods, especially waste
- **Current Use of ICTs is Quite Limited:** mainly mobile phones
- **City-Wide Urban Systems:** have significant impact on informal livelihoods
 - most significant system: electricity for garment makers; waste for waste pickers
 - current systems: largely negative
 - future systems: should take into account impact on livelihoods

RESEARCH PROJECT: NEXT STEPS

- **Additional Research Methods:** before end of December 2015
 - Survey of organizations of informal workers
 - Profile of selected Focus Group participants
 - Key Informant Interviews
- **Consultation with Practical Action: November 3-6, 2015**
 - to share preliminary research findings
 - to plan final phase of project, including Scenario Analysis
- **Future Scenario Analysis:** will build on findings from the research project PLUS
 - comparative experience of same categories of informal workers in other cities, especially in higher income countries: for example,
Production Technologies -
 - in Latin America, some waste picker organizations have begun to process recycled waste – this requires **specialized skills & processing technologies**
 - in Thailand and elsewhere, some home-based garment makers have been sub-contracted to produce modern garments for global value chains – this requires **specialized skills & latest models of sewing machines****Urban Systems -**
 - in many cities, as they modernize solid waste management, waste pickers are denied access to waste and the right to bid for solid waste management contracts
 - in many cities, as they seek World Class City status, slum settlements and natural markets of street vendors are relocated to the periphery of cities – making electricity and transport very difficult to access and/or costly



Thank You!!

Your Questions, Comments & Suggestions
are Most Welcome!!