

DRAFT
Recycling Advisory Committee (RAC) Meeting Minutes
April 13, 2022, 8 am – 9:30 am
Virtual Meeting Minute Taker: Dailey Brannin

Members present: Leah Beckett, Dailey Brannin, Holden Cookson, Catrina Damrell, Shirley Elliott, Debby Galef, Martha Henry, Sakiko Isomichi, Debby Knight, Scott MacGrath, Audrey Ng, Laura Nichols, Diane Roseman, Meera Singh, Quinten Steenhuis, Mary Verhage

Members absent: Susy Jones, Janet Mosley, Richard Nurse

Staff Present: Mike Orr

Public present: Carol Giesecke, Helen Snively

1. Housekeeping

- March 2022 meeting minutes were approved

2. Reuse and Recycling in India – Meera. See presentation at end of Minutes.

- Intro
 - 1.3 billion people, 960 million tons waste annually
 - 70% goes to landfills
 - Per capita consumption of plastic is 26 lbs.
- Informal system of recycling: ragpickers (mostly women) and waste-pickers
 - They play a very big role in the solid waste management and market; base of waste management hierarchy in India
 - Usually a family venture: children are involved too
 - Collect from households, roadsides, etc.
 - Hierarchy within ragpickers: ragpicker boss
 - Ragpickers and waste pickers work with MRFs
- Household recycling system
 - *Raddiwalla* comes to households to separate trash, pays households for waste, then brings to a kiosk for further sorting, where it's then sent on to a larger vendor
- Innovative initiatives
 - Plastic milk bags: The Milk Bag Project
 - Really popular – went viral and is now in five other cities
 - Instructional video on how they should be used in a household
 - Over 2.5 tons have been diverted from landfill so far!
 - Household waste
 - Waste No More campaign – focused on wet vs. dry waste
 - Temple flowers
 - Don't go in the trash because they're considered sacred
 - "Flowercycling": turns flowers into incense sticks, soaps, compost
 - Others: Tetrapak cartons; eco-bricks as construction material
- Culture of repair: cobblers, tailors, electrical repair stores

- Mexico
 - mattress and large goods are picked up and recycled for reuse
 - waste is sorted on truck as it's picked up
- Discussion post-presentation:
 - Really valuable presentation, should give again to a larger group
 - Question of what is wet vs. dry waste: wet is kitchen scraps and dry is everything else

3. City Updates

- Textiles update from Mike
 - Collection is going well
 - 54,035 pounds collected from December 2021 to March 2022
 - Private orgs may have their own drives, earning them money - outside of city efforts
- Events seeking volunteers:
 - Trash cart sneak peaks events; to talk compost and recycling with people
 - Mon. 5/2: 2-4pm at O'Connell Branch
 - Mon. 5/2: 5-7pm at Valente Branch
 - Tues. 5/3: 1-3pm at Central Square Branch
 - Wed. 5/4: 3-5pm at Boudreau Branch
 - Thurs. 5/5: 4-6pm at Collins Branch
 - Fri. 5/6: 3-5pm at O'Neill Branch
 - Finished compost giveaway: May 7, talk compost; help out
 - Mayfair: May 15: Tabling to talk compost/recycle. – **might not happen**
 - Comments:
 - Send Mike a note if interested in volunteering
 - Sneak peeks will include info on old bins; city is offering collection and recycling of them
- Update on legislation (i.e., Bottle Bill, EPR laws)
 - Committee that takes these bills (ENRA) has delayed when decisions are made
 - EPR would be for mattresses, paint, PPP
 - Not much to report
- Extra note from Mike on finished compost: compost was used to plant 475 trees in Cambridge. Part of city's efforts to be more innovative and circular.
- No mention of anaerobic digestion on Cambridge's compost page (Holden)
 - Compostable bag discussion
 - Deterrent to some to have to buy compostable bags
 - Possibility of saying that plastic bags are an option, since they get screened out anyway (as do compostable bags)
 - We don't want to promote more plastic bag usage, but could encourage using existing plastic bags (such as produce bags)
 - Plastic bags that go through de-packager get sent to trash
 - Encourage creative container usage – bottom of cartons
 - We should see what the drivers/collectors think

- Question of more contamination in soil if we encourage plastic bags. Holden brought up a UVM study that shows microplastics amount are generally the same through de-packaging and through “clean” source-separated organics
- Trade-offs of how we make it accessible for the residents while doing what’s best for the environment
- Mike will be sending out Sakiko’s/previous subcommittee’s survey soon
- Finished compost giveaway
 - Not at DPW due to issues with soil affecting DPW site. Instead at Squirrel Brand Park
 - Volunteers will promote compost, direct people to fill up their bins, and possibly manual shoveling out of compost
 - People will get up to 20 gallons of compost and should bring their own bins

4. Sub-committee topics

- Communication: Sakiko update
 - Old trash bins – can people call to see if they can get some? Has Mike reached out to CET?
 - Mike: logistics are the issue (not that people don’t want them)
 - Committee had planned to pick a population to target
 - Decided they should make suggestions to the website so that it’s more accessible
- Textiles: Scott update
 - Looking at private large apartment properties to host bins; going to connect with Camilla at DPW
- Food waste reduction: Catrina update
 - Touched on possible pitch for compost drop off at City Hall
 - Outlining some more dates for compost bins handouts

5. Closing, 9:10am

- Public Comment: Carol Giesecke wishes for more common litter pickup from the public
- Action Plan/Decisions
 - Past action items:
 - Card has been sent to Rob
 - Again, sign up for volunteering
 - Question of in-person or remote
 - Suggestions to meet remotely for convenience, COVID considerations, accessibility, etc.; but perhaps have in-person “bonding” time a couple times a year
 - Mike will send out a poll, including a time to do a social
- General comments:
 - Two more RAC meetings until the summer, then four in the fall until this session ends

- We do still need fall minute takers
- Announcements
 - Check out the newsletter coming out shortly
- Closing time: 9:32am

Zoom chat:

From Holden Cookson to Everyone 08:28 AM

When I lived in CDMX I took a video of this!

From Martha Henry to Everyone 08:29 AM

Fabulous presentation, Meera!

From Deborah Galef to Everyone 08:30 AM

I agree!

From Audrey Ng to Everyone 08:30 AM

Thank you, Meera! That was so informative and inspiring!

From Holden Cookson to Everyone 08:45 AM

Depending on what they do with their depackaged materials. With farm-based AD compostable bags/paper bags, etc. will be pushed out and used as a bedding for dairy cows.

From Sakiko Isomichi to Everyone 08:45 AM

Any survey is a great step!

From Sakiko Isomichi to Everyone 08:52 AM

Either way!

From Diane Roseman to Everyone 08:52 AM

I unfortunately have to take off! Have to spring my daughter from COVID prison at her college. She'd like to see daylight. Happy Passover/Easter/Ramadan everyone!

From Helen Snively to Everyone 08:53 AM

oh, Diane, what a mission! good wishes on it... and yes, happy holidays all around.

From Sakiko Isomichi to Everyone 08:55 AM

I think it'll depend how it's worded

From Deborah Galef to Everyone 08:56 AM

Produce bags are ubiquitous.

From Helen Snively to Everyone 08:57 AM

Debby G is right.. so is Holden.. let's promote using old ones.. I'm so glad to hear this... won't have to pay for green bags.. maybe see it as an opportunity to make use of those ubiquitous produce bags.

From MICHAEL ORR to Everyone 09:18 AM

recycle@cambridgema.gov

From Holden Cookson to Everyone 09:18 AM

<https://youtu.be/5seHvKvO5EE>

<https://www.cambridgema.gov/Services/curbsidecomposting/projectreports>

From Shirley Elliott to Everyone 09:22 AM

Sorry, I have to run. Have a great, vitamin D-filled day!

From Audrey Ng to Everyone 09:23 AM

Textile committee notes for general meeting minutes here:

https://docs.google.com/document/d/1aXwtbU3mXy3JnEcAa_UcqJT8Wa8bgw0HDPMVpY5SrGU/edit#

From Holden Cookson to Everyone 09:25 AM

SWAC has some awesome stats on dog poop in the waste stream

From Catrina Damrell to Everyone 09:25 AM

What's SWAC?

From Holden Cookson to Everyone 09:25 AM

<https://www.mass.gov/service-details/massdep-solid-waste-advisory-committee>

You'll want to reach out to Sean, not John. I think John is in a new position at DEP

Create a poll?

From Sakiko Isomichi to Everyone 09:30 AM

And we can hear each other well!

From Holden Cookson to Everyone 09:30 AM

bonding!!!

From Leah Beckett to Everyone 09:30 AM

Agreed!

From Sakiko Isomichi to Everyone 09:31 AM

Sorry, I have to go but see you next time!

From Holden Cookson to Everyone 09:31 AM

More work for mike!!

Reuse & Recycling in India

April 13, 2022



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Some facts

- population – 1.3 billion
- generates estimated 960 million tons of waste annually
- 70% of this waste is disposed of in landfills
- 62 millions tons of municipal solid waste generated in India every year
- Per capita consumption of plastic 26 lbs

India's Informal Recycling System

Ragpickers & *Raddiwallas*

Informal waste collectors, ragpickers and neighborhood recycling vendors play a big role in India's solid waste management and recycling market.





Ragpickers form the base of hierarchy of the informal sector of solid waste management. They are mostly very poor and “low-caste” women and men. Children help, too.



- Efficient ragpicker entrepreneurial system
- Ragpicker boss has “control” of certain areas
- Ragpickers bring recyclables collected from streets & garbage heaps to the boss’s collection center
- Recyclables are sorted and picked up by or delivered to scrap dealers
- They sell them to industry recyclers



The Municipal Corp of Greater Mumbai is now providing space for Material Recovery Facilities and also undertaking transportation between collectors and the MRFs.



WASTE
NO MORE

DRY WASTE
MATERIAL RECOVERY FACILITY

SBI FOUNDATION

Hindustan Unilever Limited

Dalmia

INDIA 2022

Xyntec

WASTE
NO MORE

WASTE
NO MORE

#KachraBatega
MumbaiJeetega

MUNICIPAL WARD "D"
DRY WASTE - MRF

HELPLINE NO.

+91 93249 50139

SBI FOUNDATION

Hindustan Unilever Limited

Dalmia

INDIA 2022

Xyntec

STOP
SIGNAL

MH02
ER6134



India's Household Recycling System

Raddi or Kabaad means scrap, junk,

Raddiwala or kabadiwala is an informal waste/scrap buyer and dealer

When a household has enough recyclable waste collected, the “*raddiwala*” is called to sell the raddi (scraps/waste).



Mr. Pandey, our neighborhood “*raddiwala*”, separates the different materials before weighing them.



Our recyclables that day earned us
INR 226.00 = \$ 3.17!

Mr. Pandey's Rates
(in June 2019 when USD 1.00 = INR 71.00)

Item	Buys for (per kilo)	Sells for (per kilo)
Paper	9.00	10.00
Magazines	10.00	11.00
Cardboard	3.00	
Plastic	12.00	15.00
Metal	12.00	15.00
Glass	No value	





Mr. Pandey loads the recyclables on his bicycle and takes them to his kiosk.



Further sorting gets done here before the recyclables are taken to a central market where Mr. Pandey will sell the materials to scrap dealers who will go on to sell it to recycling factories.



While I was at the kiosk, someone came to sell a load of cardboard.

There are thousands of stores all over India just like this one where you can come to sell your recyclable waste and also buy old magazines and books





To Make an Extra Buck



Innovative Initiatives

Recycling of everyday products

plastic milk bags

household waste

tetra pak cartons

temple flowers

The Milk Bag Recycling Project



- a video received on WhatsApp/social media
- Now receive milk bags from across the country
- now collection partners in 5 major cities
- Recycled milk bags are made into pipes, buckets, benches and such.

A black and white photograph of a large pile of discarded, crumpled milk bags. The bags are white with some printed text and barcodes. The background is slightly blurred, showing more bags and what appears to be a person's hand in the upper left corner. The text is overlaid on the center of the image.

HAR GHAR HARA GHAR, GARBAGE FREE INDIA & CLEAN MUMBAI FOUNDATION

PRESENTS

The Milk Bag Project

Over 2.5 tons of milk bags (about 1 million) have been saved from landfills, and from polluting water bodies and land.



Waste No More Campaign

- Municipal Corporation of Greater Mumbai **waste segregation awareness campaign in households**
- Public Private Collaboration
- 3-pronged approach:
 1. introductory webinar to educate building residents and introduce them to the program
 2. on-site training session for building residents, janitorial staff and household help
 3. Daily collection of dry waste which then gets transported to a satellite MRF

Participating buildings get a 5% property tax rebate if the waste segregation is conducted as per guidelines



That's me!

We showed the residents, domestic help and janitors how
To separate wet and dry waste properly.

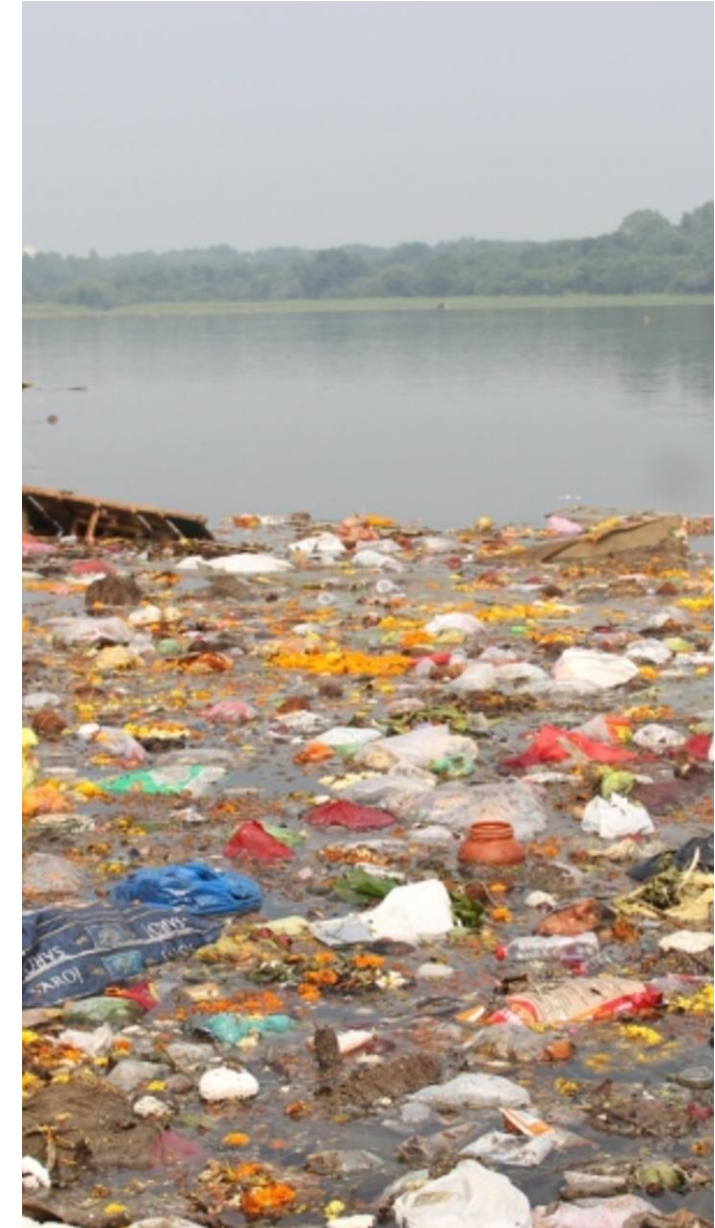


Shot on OnePlus
By Suraj Barma



Flowercycling Temple Waste

- Devotion displayed with flowers
- 800 million tons of flowers offered in temples & mosques annually
- Sacred so can't be sent to landfills
- Put in rivers & base of sacred trees – in plastic bags
- Pesticides leach into rivers/plastic bags
- Initial resistance, now thriving social enterprise



Flowercycling Temple Waste



- 1.5 tons of flowers collected daily from temples and mosques
- Waste-pickers sort – women
- Increased income

- Made incense sticks, bathing soaps, enriched compost
- Products sold in holy basil seed infused paper for planting





Tetra Pak Cartons



Eco-bricks



“Repair & Reuse” Enterprises are Ubiquitous in India

Cobblers

Tailors

Fix It Stores

Mochi - cobbler

Mochis set up “shop” on sidewalks and are patronized by the rich and poor. Apart from shoes, they repair bags, belts and even umbrellas!



Sidewalk tailors are found in almost all neighborhoods. They often “rent” small spaces in front of Stores.



Electrical, Electronic & Gadget Repair Shops

While I was in India recently, I had our kitchen blender and pressure cooker repaired!



Devendra

☎ 9930345257

DEV ELECTRICALS

Sales & Service



Repairing all kinds of Indian & Imported

Repairing Shop



210



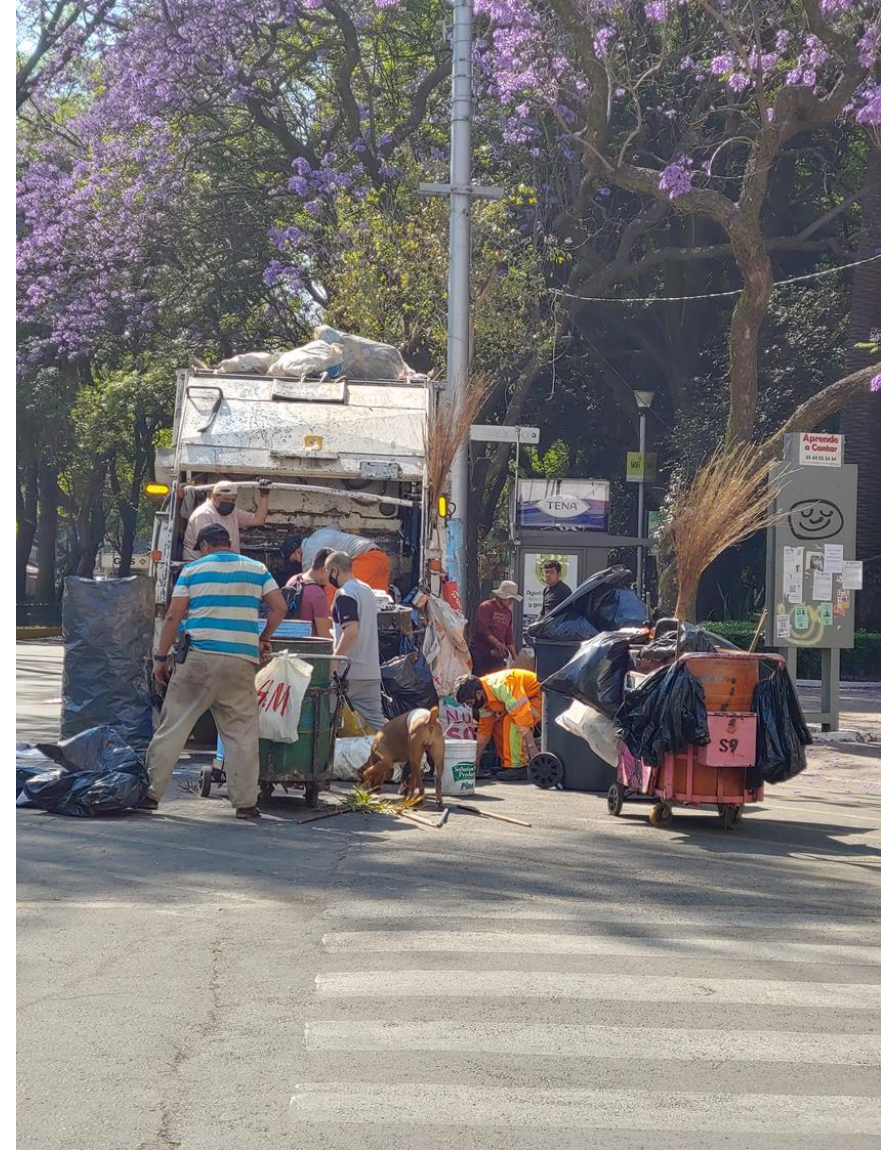
On a recent trip to Mexico City...

Reuse in Mexico City

Mattresses, white goods and other electronic items are “bought” from residents of CDMX, refurbished and sold to buyers in small towns at low-cost.



Waste Segregation in Mexico City



My frustrations re the Indian system

- Rate of recycling is low
waste paper imported to make paper
- Hazardous conditions for waste pickers and recyclers
- Lack of civic sense