

## Which plastics are safest? Understanding plastic recycling codes

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I've said it before and I'll say it until I'm blue in the face: I. HATE. PLASTIC. and really try to avoid it as much as possible.

# BODY *Unburdened*



— designate which plastics are more toxic and which are safer.

## **1: PET or PETE**

This is the thin, clear plastic used for bottled water, soda, juices, condiments, etc. This plastic can contain trace amount of the endocrine-disrupting BPA, which has been linked to breast and uterine cancer, an increased risk of miscarriage, decreased testosterone levels, birth defects, and other reproductive issues. While PET/PETE is relatively stable at normal temperatures, it will leech readily when exposed to heat such as when left in a car. It is for this reason that consumers are advised not to keep water bottles in the car. Since the plastic degrades with use, it is advised to not reuse these plastic products.

**VERDICT** → Moderate hazard

## **2: HDPE (High-Density Polyethylene)**

This is the thicker, more opaque plastic found in milk and water jugs, juice bottles, detergent, shampoo, and motor oil containers, and toys. Unlike #1, these are safe to refill and reuse.

**VERDICT** → Low hazard

## **3: PVC (Polyvinyl Chloride)**

PVC has been around the block. It's found in everything from shower curtains to baby bibs, mattress covers, shampoo and liquid soap bottles, cling wrap, cooking oil bottles, and much more. PVC contains endocrine-disrupting phthalates, which have been linked to reproductive problems and birth defects. The cherry on top: the PVC manufacturing process releases dioxin into the environment, a potent carcinogen that bioaccumulates in our bodies, meaning it stays there for a very long time, if not forever. It also bioaccumulates in animals' bodies, such as the ones most of us consume, which then make their way into our bodies after we eat them. It is not surprising that workers that manufacture or work with PVC have higher cancer rates.

# BODY *Unburdened*

Q ≡ MENU

This plastic is used to create flexible plastics products like grocery store bags, plastic food storage bags, bread bags, frozen food packaging bags, plastic wrap, dry cleaning bags, and garbage bags.

**VERDICT** → Low hazard

## **5: PP (Polypropylene)**

This plastic is used to create hard but flexible plastic products like yogurt containers, drinking straws, syrup bottles, salad bar containers, and diapers.

**VERDICT** → Low hazard

## **6: PS (Polystyrene)**

Found in rigid plastics such as opaque plastic spoons and forks, and in Styrofoam. These plastics can leach styrene, a known neurotoxin with other negative health effects.

**VERDICT** → High hazard

## **7: Other**

This symbol includes a range of plastic materials. It includes polycarbonate, which contains the endocrine-disrupting chemical BPA and is most commonly used to for baby bottles, sports water bottles, large 5-gallon water jugs, plastic cutlery, and in the lining of food and baby formula cans.

**VERDICT** → High hazard

## **Make safe choices**

... by avoiding plastics with codes 3, 6, or 7 as much as possible, as well as generally reducing your exposure to all plastics. Check out these 10 ways to end your relationship with plastic.

# India's Dharavi Recycling Slumdog Entrepreneurs

December 5, 2012 / [Sustainability](#) / By [Victoria Moore](#)



For the past three decades, there has been a transformation of the recycling psyches that has been experienced across the globe. New consumerism heaped atop [rapid urbanisation and population growth](#) has left municipalities with overarching concerns regarding waste management. For this reason, recycling has become a worldwide multi-billion dollar industry and is set to increase as our consumer culture continues to accelerate.

In the West, we recycle because of our understanding that in doing so, [it is essential for conserving the planet's resources](#). However, for some of the poorest people in the developing world, recycling often isn't a choice, but a necessity of life.

Sprawling over 550 acres of land in the heart of India's third largest city, Dharavi's maze of dilapidated shacks and narrow, odorous alleyways is home to more than one million people. In this small area of Mumbai's sprawling slum, hidden amid the warren of ramshackle huts and squalid open sewers are an estimated 15,000 single room factories, employing around a quarter of a million people and turning over a staggering £700 million (\$US 1 billion) each year. Despite the poverty, Dharavi has been described by the UK's Observer as "one of the most inspiring economic models in Asia". And all from one process: **Recycling**. It's difficult to find something here that is not recyclable.

Could it be that these informal, shanty room enterprises are actually leading the city's green movement?

### **Dharavi: A Recycling Miracle**

Dharavi, [a place filled with dirt, filth and sewerage](#) and what may be seen as an eyesore for most of the city's residents is also a *recycling marvel*. Labelled as the recycling centre of India, Dharavi is one of Asia's largest slums and is situated at the heart of India's financial capital.

The country has witnessed a substantial growth in the consumption of plastics and an ever increased production of plastic waste which has become an overwhelming environmental, health and aesthetic hazard for many urban areas. Mumbai alone generates almost 7,025 tons of waste on a daily basis and for this reason Dharavi remains a land of recycling opportunity for many rural Indians.

In India, the people who make their living by recycling waste are known as "ragpickers" and Mumbai homes almost 300,000, many of whom are India's poorest and most marginalized groups. The *ragpickers* primarily wade through piles of unwanted goods to salvage easily recyclable materials such as glass, metal and plastic, which are then sold to scrap dealers, who then process the waste and sell it on either to be recycled or to be used directly by the industry.

Most of these processes take place in what is known as '*Dhavari's 13th Compound*'; a place where over **80% of Mumbai's waste is given a new lease of life**.

The seller and the buyer both make money thus making it a true *revenue-generating* idea. In fact, wages in Dhavari are well above the monthly average at 3,000 to 15,000 rupees per month. This fascinating world of generating revenue out of trash has earned the industry the label 'Dharavi's Recycling Miracle'.

Extraordinarily, *India has no municipal waste management policy or program of recycling* which makes the work of the ragpickers indispensable to the city. Due to the lack of formal systems of waste collection, it falls to the city's ragpickers to provide this basic service for fellow citizens. Without them, solid waste and domestic garbage would not be collected or recycled, let alone sorted.

### **Dharavi's Influence and Paperman**

Inspired by the ragpickers of Mumbai, Paperman, a non-governmental organisation situated in India's eastern city of Chennai (formerly known as Madras) helps to promote and create awareness about recycling and organises campaigns to combat many of the social problems India's urban areas are rife with.

Founded by Kerala-born and environment conscious Matthew Jose in 2010, Paperman is a social venture aimed at creating a paper recycling revolution, inspired by the ragpickers of Mumbai. *The program has reached over 100 schools and 2 million students* in Chennai, educating them about recycling but also laying emphasis on the role Paperman plays in India's bigger recycling picture.

Paperman now has the support of various corporate and governmental organisations and it appears it has already generated a ripple effect, having spread its campaign to 66 cities across India. It is these grassroots movements that, we hope, will make India a role model for the world in dealing with environmental issues.

## **A lesson to be learnt**

Recycling is still very much the focus of many developed countries, who continuously strive to improve their recycling endeavours. Despite many of the social and ethical controversies surrounding the recycling industry in India, Dharavi has carved a reputation for itself as the ***ecological heart of Mumbai***, recycling up to 85% of all its waste material produced by the city.

This compares strikingly to the [UK recycling figures](#). Over the last decade, less than 20% of the waste produced has been recycled. The UK produces 30.5 million tonnes of waste each year. This is equivalent to a staggering 23.9 million tonnes of waste in landfills each and every year.

If the UK could match the recycling rates of Mumbai, it would leave only a quarter of existing waste entering landfills per year (around 6 million tonnes), but also costs in sourcing materials would be dramatically cheaper. This reduction in sourcing costs could potentially create higher profit margins, followed by generous reinvestment opportunities into crucial areas responsible for re-booting the economy.

With an accelerating consumer culture and population numbers on the rise, [waste management will continue to be a pressing issue of today's environmental climate](#). ***Resources are limited but wants are unlimited.***

In India, the fact remains that recycling has helped reduce the ever-increasing volumes of trash, fill less landfills, produce bio gas and provide cleaner societies, as well as conserving resources and reducing costs.

The scavenger mentality, grassroots recycling and sheer necessity of Dharavi's ragpickers have led to imaginative leaps in deploying waste and a growing number of environmental campaigners recognize Dharavi as *becoming the green lung stopping Mumbai choking to death on its own waste*.

## About the Author [Victoria Moore](#)

Victoria Moore holds a first class honours in Geography and an M.Sc. in Environmental Governance from Manchester University. She has worked as a geography tutor and recently returned from a six month journey through Asia. Victoria is passionate about the environmental movement and aspires to have a positive impact on the planet through her work and play!



[Check out this website for more information about the Sunset Park Materials Recovery Facility!](#)

“New York City selected the 29th Street Pier in the South Brooklyn Marine Terminal in Sunset Park, Brooklyn, as the location for a new state-of-the-art recycling facility to be built and operated by Sims Municipal Recycling. The facility opened in December 2013 and processes the majority of New York City’s commingled curbside material.

Situated on an 11-acre pier, the Sunset Park MRF is the largest and most sophisticated plant for commingled residential recyclables in North America.

### **Recycling Education Center (REC)**

SMR built and operates a Recycling Education Center (REC) at its Sunset Park MRF. This facility hosts more than 8,000 visitors a year, consisting primarily of schools groups, but also adults, graduate classes and professional organizations. The REC spans includes interactive displays and is connected to the recycling facility with a bridge so visitors can witness first-hand how metal, glass, and plastic are sorted.”