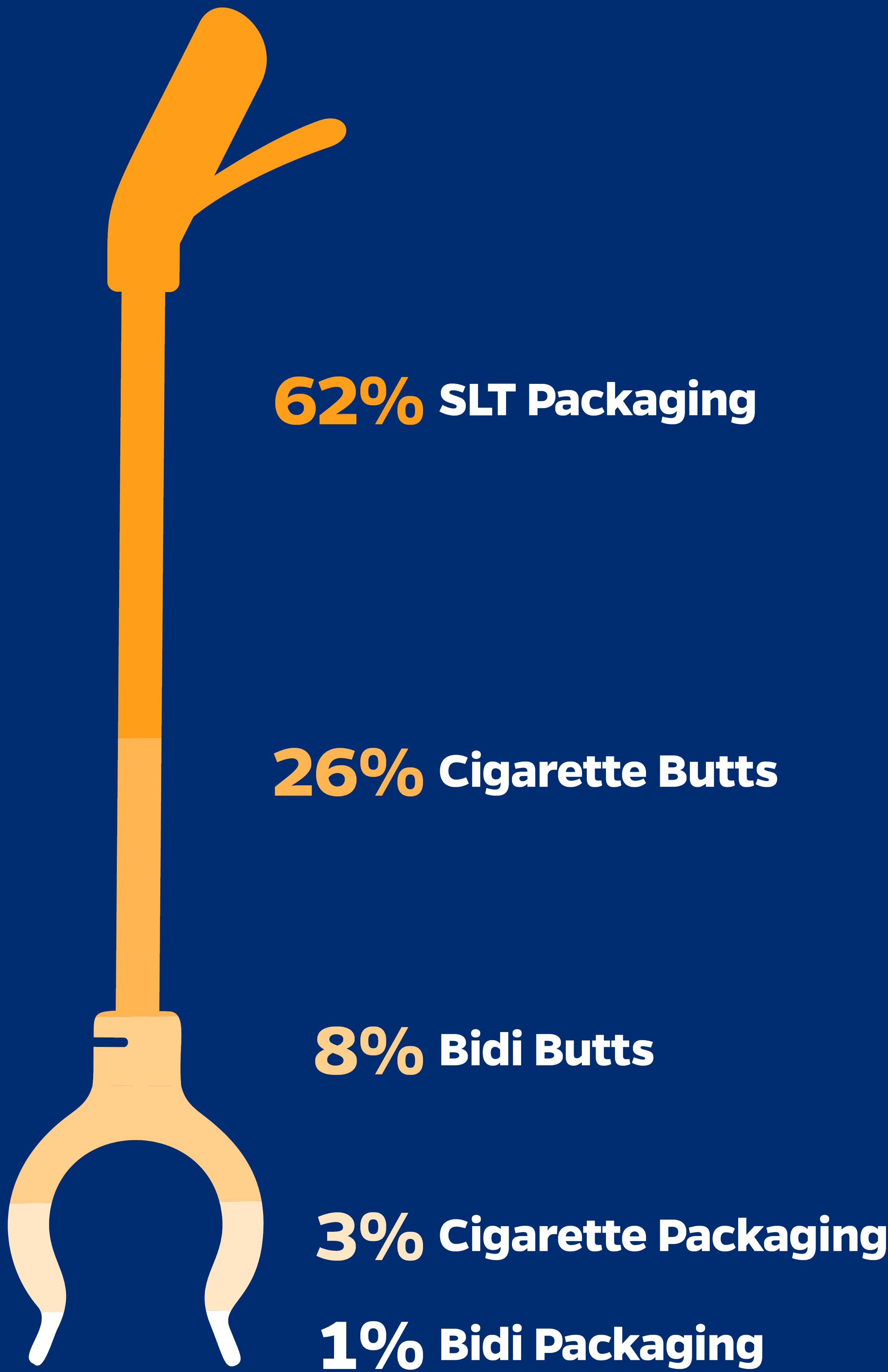


Tobacco product waste
is **ubiquitous** in urban
environments of India.
17,000+ pieces of
tobacco product litter
were identified during
this study:



Presence and Classification of Tobacco Product Waste
Observed in Urban Settings of 9 Indian Cities

Significance

In India, there are approximately 267 million tobacco users.

Of the population aged 15+

- 21% use smokeless tobacco (SLT)
- 8% smoke bidis
- 4% smoke cigarettes

These products create a range of waste that is commonly littered. This study conducted observations to quantify the number and classify the type of tobacco product waste in nine cities throughout India.

Methods

- Observations were conducted during Nov.–Dec. 2022 in the following cities: Bengaluru, Bhubaneswar, Chennai, Delhi, Guwahati, Hyderabad, Lucknow, Mumbai, and Patna
- In each city, observations were conducted along 15 different routes for a total of 135 observations; each route was approximately 250 miles long

Results

- Each type of waste (SLT packaging, cigarette butts/ packaging, and bidi butts/packaging) was observed along all 135 routes
- The proportion of the types of tobacco product waste observed in each city was similar
- In eight of the cities, more than 50% of observed tobacco product waste was SLT packaging, except in Chennai, where the proportion of SLT packaging was 35%
- Chennai had the highest proportion of cigarette butts (36%) and cigarette packaging (9%) waste

Discussion

- SLT packaging is often made of plastic or foil, which can remain in the environment in perpetuity
- Cigarette waste (butts and packaging) represented over one-quarter of the observed waste, despite being used by only 4% of the population in India
- Bidi packaging often consists of repurposed newsprint—therefore, this type of waste may be underreported
- Opportunities to regulate packaging and products to reduce their environmental impact include eliminating filters and requiring packaging to be made of biodegradable materials

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Competing Interests: Dr. Cohen is a paid consultant in litigation against a tobacco company.

Tobacco industry	E-cigarette & nicotine product industry	Pharma industry
NO	NO	NO
NO	NO	NO

NO	NO	NO
NO	NO	NO

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◀ Watch the companion video to this study assessing tobacco product litter and post-consumption marketing in India