

# Creating sustainable cities through decentralised waste management: census listing of buildings

<b>Submission date</b> 08/09/2021	<b>Recruitment status</b> No longer recruiting	<input checked="" type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 08/09/2021	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
<b>Last Edited</b> 08/07/2024	<b>Condition category</b> Other	<input type="checkbox"/> Individual participant data <input type="checkbox"/> Record updated in last year

## Plain English summary of protocol

### Background and study aims

The project examines the health, environmental and economic impacts of decentralised solid waste management on informal waste workers and the households or businesses that they provide services to.

### Who can participate?

All households in the area of Patna, India will be listed in the census, estimated to be 20,500.

### What does the study involve?

The study will conduct door to door visits in all buildings in designated areas of Patna to develop a sampling frame of waste generators and waste service providers. The study will collect observational data related to economic, health and environmental characteristics of the relevant population. The expected population is about 25,000 households, of which 10,000 will be interviewed as waste generators and about 500 as waste services providers. The primary variables being collected in this initial scoping study are the number of households and household members by building, number of school-going children, engagement in waste work and existing waste practices. These variables are not available for recent years at the ward level from census and official sources. A building census will be undertaken through door-to-door visits and WHO guidance for social distancing will be followed to ensure the safety of enumerators and census households/businesses. This listing of households will then be used to randomly sample households for detailed interviews on their waste management practices.

### What are the possible benefits and risks of participating?

The risk to participants is minimal and the benefits will be accurate knowledge of waste management in the areas which will be used to develop further research and policy on safe decentralised solid waste management for the households. Permission has been taken from the city government (Patna Municipal Corporation) for field activities in the areas.

### Where is the study run from?

London School of Economics (UK)

When is the study starting and how long is it expected to run for?  
July 2021 to November 2022

Who is funding the study?  
UK Research and Innovation

Who is the main contact?  
Dr Swati Dhingra, s.dhingra@lse.ac.uk

## Contact information

**Type(s)**  
Scientific

**Contact name**  
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## Additional identifiers

**Protocol serial number**  
REF/2021/08/046464

## Study information

**Scientific Title**  
Informal labour markets and decentralised solid waste management in urban areas: census listing of buildings

**Acronym**  
CityWaste

**Study objectives**  
The study examines whether decentralised waste management services can help improve the environmental, health and economic outcomes of urban residents.

**Ethics approval required**  
Old ethics approval format

## **Ethics approval(s)**

Approved 21/07/2021, London School of Economics Research Ethics Committee (Houghton Street London WC2A 2AE United Kingdom; +44 (0)20 7852 3629; research.ethics@lse.ac.uk), ref: 28362

## **Study design**

Observational study of waste practices in designated urban areas to develop sampling frames for households and waste workers

## **Primary study design**

Observational

## **Study type(s)**

Other

## **Health condition(s) or problem(s) studied**

Solid waste management in urban areas

## **Interventions**

This study will develop sampling frames for the relevant population of households for waste management services in designated urban wards of Patna (India). Door to door visits will be undertaken to determine the relevant population of households. Information on number of households and their waste practices will be collected when listing the households.

The list of households will then be used to determine the sampling frame from which households will be randomly sampled for detailed surveys containing questions on their demographic and water, sanitation, waste, and health characteristics. The study will conduct door to door visits in all buildings in designated areas of Patna to develop a sampling frame of waste generators and waste service providers.

## **Intervention Type**

Other

## **Primary outcome(s)**

Waste generation and recycling of households, at the time of the survey enumeration measured through self-reported survey questions based on WHO's WASH questionnaire at baseline, with a recall period of 1 week, 2 weeks, month or "usually".

## **Key secondary outcome(s)**

Health and socioeconomic outcomes of waste workers, at the time of survey enumeration using self-reported survey questions based on India's Demographic and Health Surveys, Periodic Labour Force Surveys, and LSE Alternative Work Arrangements Survey.

## **Completion date**

07/11/2022

## **Eligibility**

### **Key inclusion criteria**

All households in the area will be listed in the census, estimated to be 20,500. An estimated 500 are expected to be households of waste workers. Half of the non-waste worker households will be randomly sampled for detailed surveying and all waste worker households will be targeted for detailed surveying of waste work.

**Participant type(s)**

All

**Healthy volunteers allowed**

No

**Age group**

Adult

**Sex**

All

**Total final enrolment**

19942

**Key exclusion criteria**

Individuals below 18 years are excluded from all but the 6 environmental education questions in the detailed surveys.

**Date of first enrolment**

23/09/2021

**Date of final enrolment**

23/10/2021

**Locations****Countries of recruitment**

India

**Study participating centre**

The town of Patna

India

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**Sponsor information****Organisation**

London School of Economics and Political Science

**ROR**

<https://ror.org/0090zs177>

## Funder(s)

### Funder type

Government

### Funder Name

UK Research and Innovation

### Alternative Name(s)

UKRI

### Funding Body Type

Government organisation

### Funding Body Subtype

National government

### Location

United Kingdom

## Results and Publications

### Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study will be stored in a publically available repository. Anonymised de-identified data will be made publically available through the London School of Economics RLAB. <https://rlab.lse.ac.uk/>

The data will be made available for 2 years after publication in a peer-reviewed journal, expected to be 01/09/2023 to 01/09/2025.

The data will be made available for research purposes as stated in the consent form.

Only anonymised data and aggregate statistics will be published.

A data management plan is attached.

### IPD sharing plan summary

Stored in repository

### Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
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<a href="#">Other files</a>	Data Management Plan version 2		08/09/2021	No	No
<a href="#">Other files</a>	BasicCensus		12/01/2024	No	No
<a href="#">Participant information sheet</a>	version 1	01/09/2021	08/09/2021	No	Yes