

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

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

Plain English Summary

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

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Additional identifiers

EudraCT/CTIS number
Nil known

IRAS number

ClinicalTrials.gov number
Nil known

Secondary identifying numbers
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 hypothesis

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

Secondary study design

Cross sectional study

Study setting(s)

Community

Study type(s)

Other

Participant information sheet

See study outputs table

Condition

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 measure

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".

Secondary outcome measures

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.

Overall study start date

21/07/2021

Overall study end date

07/11/2022

Eligibility

Participant 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

Age group

Adult

Sex

Both

Target number of participants

20,500 in the census listing, 10,000 for household surveys, 500 for waste work surveys. Adult members of households will be surveyed. There are 6 questions on environmental education in schools, for which double consent will be taken to ask those questions to a child in the presence of their guardian.

Total final enrolment

19942

Participant exclusion criteria

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

Recruitment start date

23/09/2021

Recruitment end date

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

Sponsor details

Centre for Economic Performance

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Sponsor type

University/education

Website

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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

Publication and dissemination plan
Planned publication in a high-impact peer-reviewed journal.

Intention to publish date
01/09/2025

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?
Other files	Data Management Plan version 2		08/09/2021	No	No
Participant information sheet	version 1	01/09/2021	08/09/2021	No	Yes
Other files	BasicCensus		12/01/2024	No	No