



Promoting safe on-site sanitation in urban Tamil Nadu

Case Study of Tiruchirapalli, Periyanaicken-palayam and Narasimhanaicken-palayam

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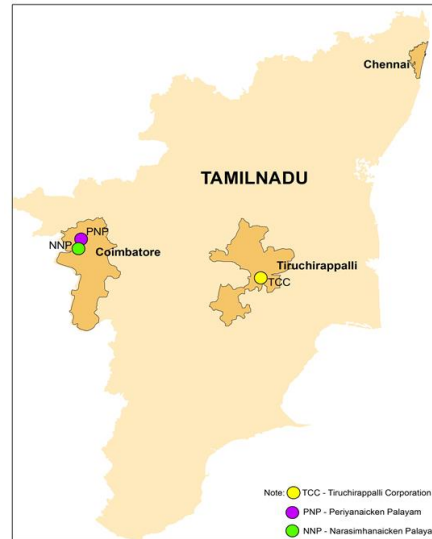


IN ASSOCIATION
WITH:



Two urban clusters in Tamil Nadu

One large city, two small towns

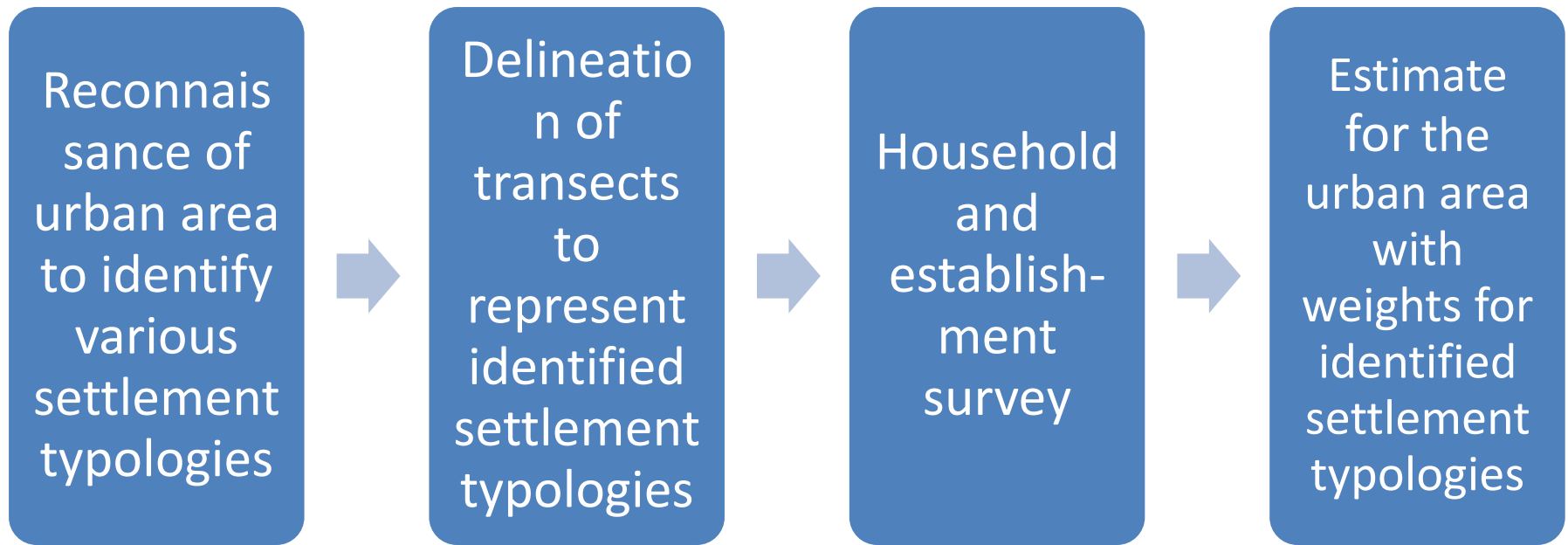


Periyanaicken-palayam (PNP)
Narasimhanaicken-palayam (NNP)

Tiruchirapalli

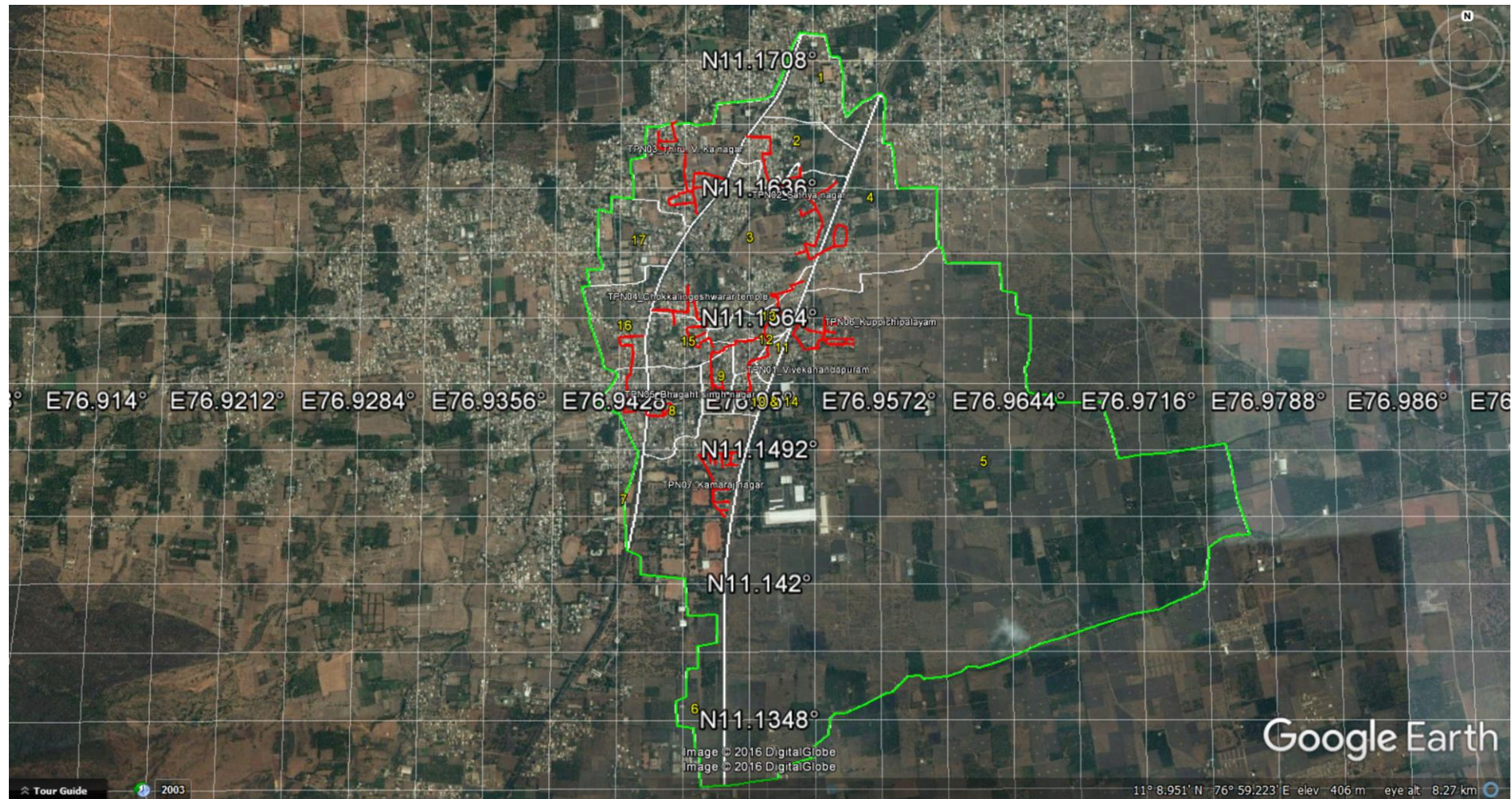
Overview of Baseline Process

schematic snapshot



Methodology of sampling for the Baseline - 1

Illustration of PNP – transversal sections



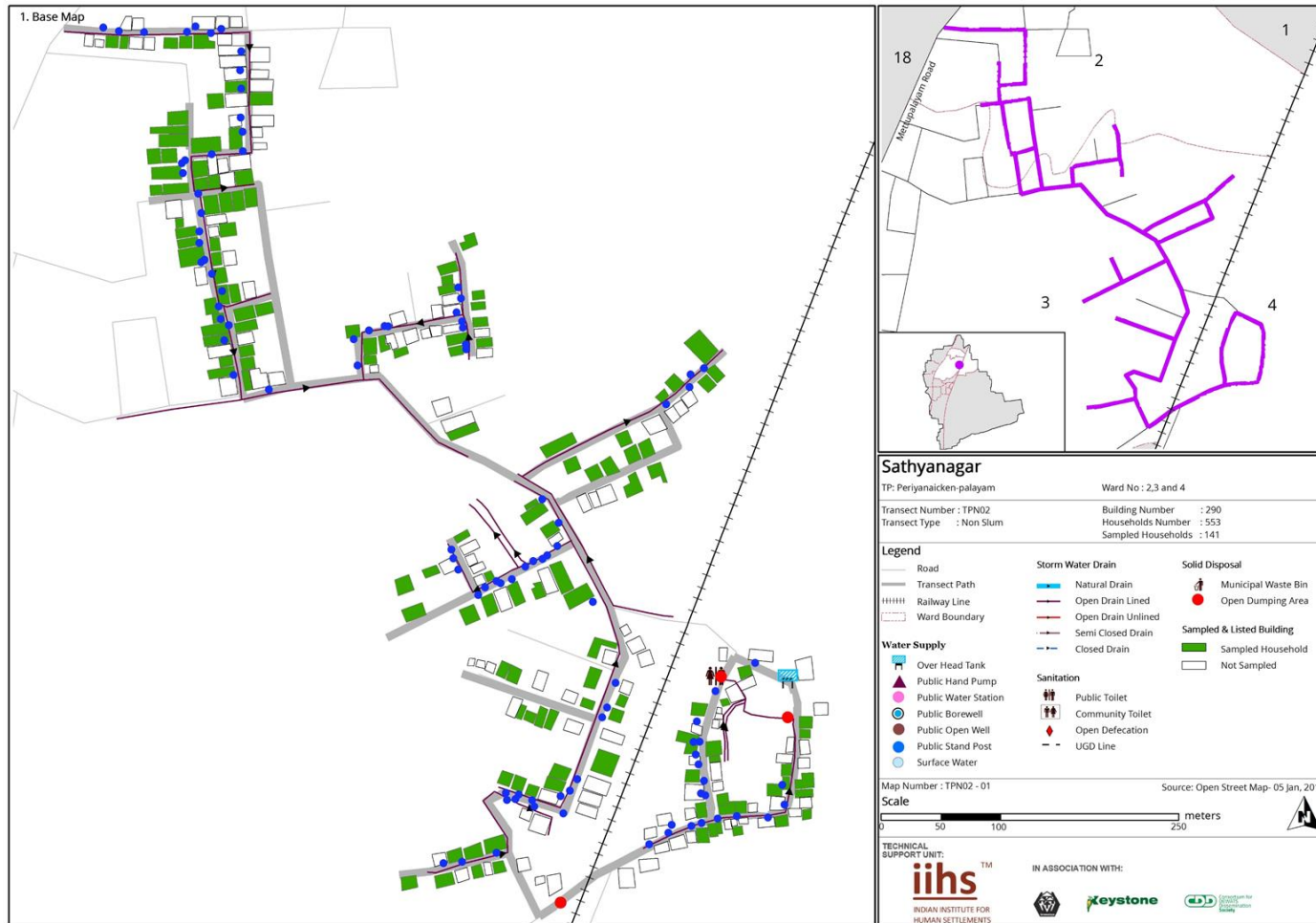
Methodology of sampling for the Baseline - 2

One sample transect



Methodology of sampling for the Baseline - 3

Details of one transect



Baseline exercises in the two urban clusters

Understanding sanitation arrangements

1. Household, institutions and establishment structured interviews
 - a. About 3,000 HHs, 25 schools and 50 establishments
2. Participatory community group interactions
3. Technical survey of 30 individual toilets and 30 public toilets
4. Interviews with Mason, Builders, de-sludging operators, community toilet users
5. Water quality testing at household water access points, drains and surface water bodies (120)



Understanding containment structures

Discrepancy between reported and actual structures

1. Issues identified during reconnaissance and pre-testing
2. Septic tanks come in different sizes and in different shapes
3. Differences in construction of elements: walls, floor and partitions
4. Interview questionnaires adapted to explore these aspects



Typical Containment Structures in PNP/NNP

What gets reported as septic tanks



Containment structures in PNP/NNP

some more



Key findings from baseline

Focus PNP/NNP

Indicator	Value
Households Interviewed	991
Households reporting “Pit latrines”	12%
Household reporting “Don’t Know”	10%
Households reporting “Septic Tanks”	66%
Of these, reporting unlined floor	3%
Of these, reporting partition walls	14%

2. Thin sample technical assessment showed:
 - a. 56% with unlined floor
 - b. 16% with partition walls
 - c. Volume of tank: 2.95 to 41 cum; median 14.13 cum



Inferences from baseline

Focus PNP/NNP

1. Significant variability in volume of containment
2. Modified forms of leach pits reported as septic tanks suggest differing sludge accumulation volumes/rates
3. This could also influence sludge characteristics.
4. Household reportage of containment cannot always be validated with observation
5. Thin sample assessment indicates that household reportage can be significantly different from actual construction
6. What exists below the ground is not fully known!



Tamil Nadu Urban Sanitation Support Program

1. Baseline carried out in two urban clusters to implement FSM
2. Support to Govt. of TN in taking forward the operative guidelines for septage management in the State
3. Technical Support Unit for Govt. of TN to scale up septage management across urban TN



How did this influence program plans?

Phased approach

1. Need for bringing back standards into the process
 - a. Strengthening building permit approval processes so that future construction follows standards – awaiting approval
 - b. Awareness creation through mason training and building owner education - in process
2. Plan for building up information on legacy structures during de-sludging operations - Proposed
3. Triangulate information on on-demand de-sludging and plan for treatment with additional buffer volume: Treatment capacity planned for existing de-sludge volumes + extra factor for future growth



Thank You

