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SAKET-17 TREE CENSUS

PROJECT REPORT (PHASE 1)

Community led Tree Census of D-Block,

Saket, New Delhi 110017

April 2022 to October 2022

Positive Action for Child and Earth Foundation

Tree Expert Committee

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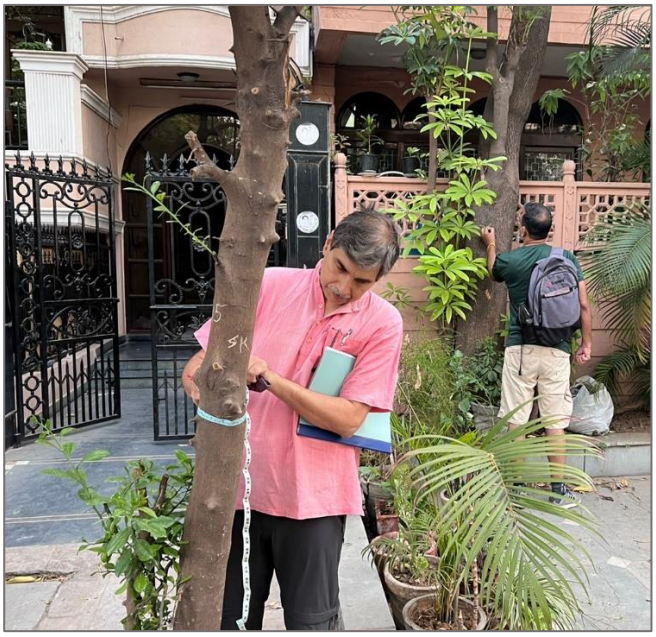

Acknowledgement

Phase I of the community led Tree census began on 23rd April 2022. The Tree Expert committee, acknowledged as a unique group of committed volunteers, who while being busy professionals, contributed skill and expertise to the Tree census. The committee provided the much-desired stewardship, orientation, and expertise to document the current tree population in D-Block, Saket, New Delhi. Padma provided the orientation on day 1 and produced the tree census SOP's, methods, collaterals, and media coordination. Vikram, equipped with his expert knowledge of trees and local flora fauna relentlessly pushed boundaries to complete the census, planned & implemented the eventual tree planting in open areas and pooled in funds and resources with Prashant to complete Phase I. Nalin acted as the enabler to the tree census and volunteered to build a growing cohesive online community of local action-oriented tree lovers. Without his sincere efforts, the census would not have the large number of volunteers as it did. Thank you also to Pervinder Bedi from D-Block Residents Welfare Association (RWA) for infusing everyone with his infectious enthusiasm and positivity early in the morning. Sincere appreciation and respect to all of them for their contribution.

The media (Priyangi Agarwal from Times of India) recognized our efforts in planning and implementing the Saket17Treecensus. The work of the Tree expert committee as well as our volunteers makes all these recognitions possible. Last but not least, sincere thanks to Vikram Advani and Nalin Savara for giving their valuable inputs in improving this report and giving it final shape. This report and our efforts may be helpful to other colonies as they try to address the issues of neighbourhood sustainability by embarking on a tree census exercise.

Thank you to all as we get ready to kick-off Phase II of Saket17Treecensus.

Prashant Sharma. 28th April, 2023
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Saket, New Delhi at a glance

Saket is primarily a leafy residential area located in South Delhi district. It consists of Press Enclave and residential blocks named by alphabets from A to N. These blocks constitute a mixture of row houses (mostly converted to builder flats now) and DDA apartments. There are several parks associated with these residential blocks as well. Saket shares its border with Mehrauli on the west, Pushp Vihar on the east, Malviya Nagar & Gitanjali Enclave on the North and Sainik Farms on the south.

Saket has seen an onslaught of construction for the last two decades or so, with more than a dozen reconstructions coming up in the colony at any given time. In any reconstructed row house plot, four families are being added, where once only one resided. All reconstructions are built with basement and at least four storeys, replacing the former independent single or double floored row houses (Kothis). This puts the trees in the colony under great threat as open space is cemented and ramped for accommodating cars. The new constructions have requirement for eight to twelve cars per plot in place of earlier 1 to 2 cars per plot putting additional pressure on the trees per 1000 vehicles index. Not only trees but recharge of ground water reduces with rapid cementing of storm drains and side walks.

The tree census is an effort towards coordinated action to improve the health, diversity, and equitable distribution of trees in the colony. Once tree deficit areas are identified, residents can help by **planting the right tree, in the right place, with the right care**, ensuring that trees mature to provide the greatest possible benefits. Anyone who does not have the ability to plant a tree might consider helping watering them in the parks or sensitising children about the importance of planting trees.

In Phase 1, tree census of D-Block, Saket was conducted. D-Block consists of row houses, majority of which have now been converted into four storeyed builder flats with stilt parking. The D-Block area includes D1 to D219 i.e. 219 residential plots with public entry areas, roads, pavements and five neighbourhood parks. (Metro park opposite gate 3 of Saket metro station,

Bansilal park, Thareja park, childrens park between Thareja and Bansilal park, and MCD park opposite Saket PVR.

What is a Tree Census

It is a census of trees conducted in collaboration with environmentally friendly residents, to understand:

- How many trees the colony has
- What kinds of trees they are
- How old are they and their health
- What trees do for area residents

Tree census data is about measurement and the better we measure, the better we will get at management. It helps us make sense of the changes we see in our neighbourhood; it helps us understand, prioritise, plan and action what needs to be done.

What is measured in Tree Census

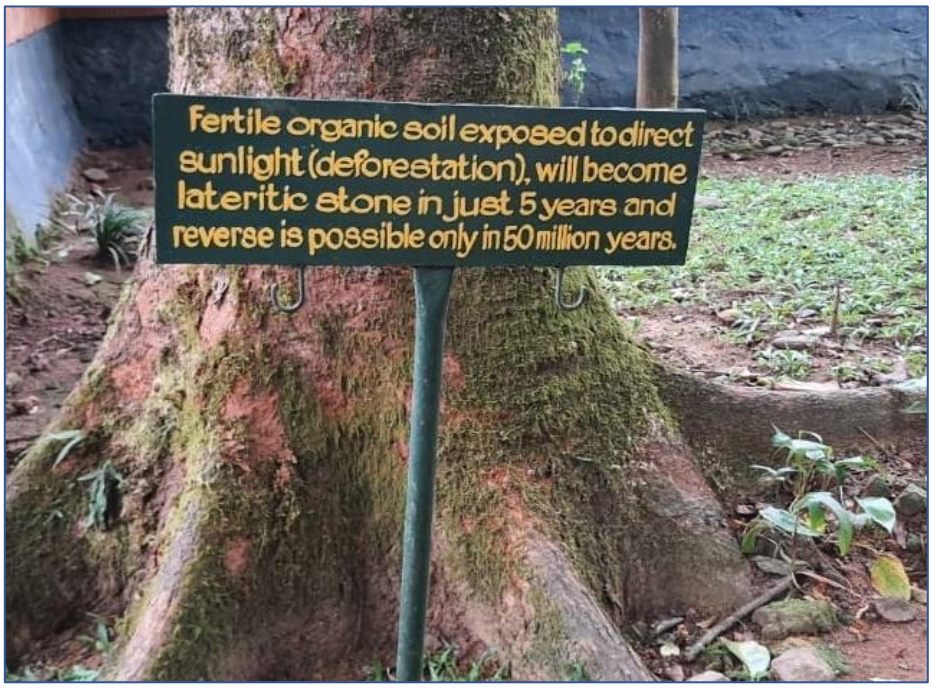
No on tree	Name of tree	Location of tree	Girth (cms)	Height (ft)	On the tree					Tree health					Ground condition	Open soil	Other comment
					FL	FR	P	N	B	DS	HLP	NL	TGC	HTH			

- On the Tree - Mention FL for flowers, FR for fruits, P for Pods, N for nest, B for burrows
- Tree Health - Mention DS for diseased, HLP for Heavily lopped, NL if you find nails, TGC if Tree guard choking, HTH for healthy
- Ground condition Mention OS for Open Soil, T for tiled, C for cemented, CS for compressed mud
- How much of Open soil around trunk Write A if space is Nil, B for 0-2 ft, C for 2ft>4ft, D for 4ft>6ft, E for 6 feet and more.

Measurement technique: normal measurement with measuring tape (in inches) - Girth measurement – with measuring tape at chest level; Height measurement – estimated by eyes (in feet)

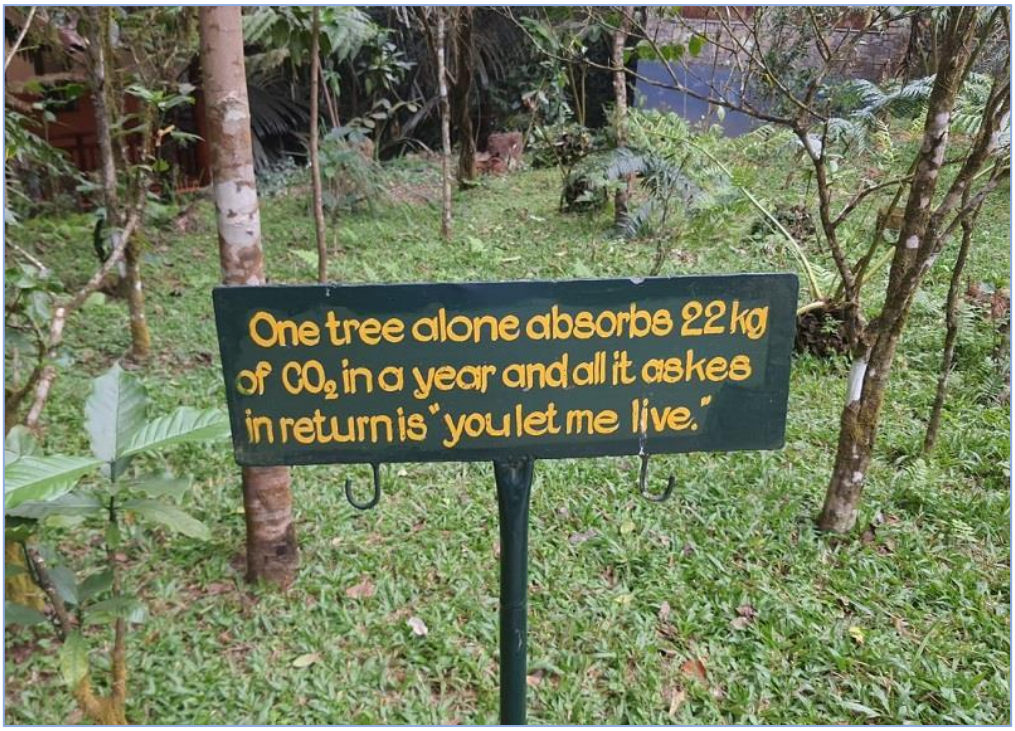
Why a Tree Census

- Tree Census aims at encouraging community awareness of the need for tree conservation, regulate pruning, felling and increasing green cover with people's participation.
- a great opportunity for all residents to get into first hand contact with trees. Appreciation of trees leads to higher protection.
- Residents learn about the significance of trees, need for tree conservation and importance of protecting them
- Identify tree deficit areas and enable scientifically informed tree planting thereby increase green cover with residents' participation
- Identify locations where exotic and invasive trees are growing
- help in understanding various tree species, their population, distribution
- get an idea as to how prepared residents are when it comes to fighting pollution
- Assessment of tree species protected by specific legislation (Rare, endangered, critically endangered, endemic, and vulnerable)
- help understand the local biodiversity, help in knowing condition of trees, identify and restore ones that are infected or lean precariously towards compound walls or roads
- Identify trees for de-concretisation
- Quantitative data on how trees affect the environment and consequently enhance health of residents and environmental quality in the colony



Way forward: Positive Action

- Tree health – pest treatment for unhealthy trees, stressed trees, removal of nailing, tree guards, de-concretisation through concerned authorities, restoration or removal of precariously standing trees shall be undertaken post the census
- Rare trees/heritage trees/medicinal/herbal trees/tallest tree/thickest tree identified and all measures taken to protect them
- Data analysis and outcomes - tree census and inventory report, carbon sequestered, action plan for plantation, removal of invasive species and so on
- Once tree deficit areas are identified within Saket, residents can help by **planting the right tree, in the right place, with the right care**, ensuring that trees mature to provide the greatest possible benefits. Anyone who does not have the ability to plant a tree might consider helping watering trees in the common areas or sensitising others about the importance of trees



- The environmental and ecological benefits of trees include energy savings from heating and cooling, air quality improvement and strengthening of asset values of property
- D-Block has good population of healthy trees, but special attention should be given to diseased and dangerous trees
- Young population of trees in D-Block is high and thus requires protection from getting cut
- Regular maintenance and pruning of mature trees will lessen the nuisance created by tree felling

Tree Census data

The tree census focused on the count of the existing population of trees in D-Block Saket New Delhi. A tree data sheet was used to collect data (snapshot given on page 5 of this report). April 23rd, 2022, 6 am was chosen as the orientation day, volunteers gathered and orientation training was provided by Padma in Saket Metro Park (opposite Saket metro gate 3). The training was enhanced by photocopies of a tree identification book (Trees of Delhi – Authored by Pradip Krishen) and hard copy of tree data collection sheet. All tree data was collected and verified over a period of 6 months. The data was data entered into excel and processed.

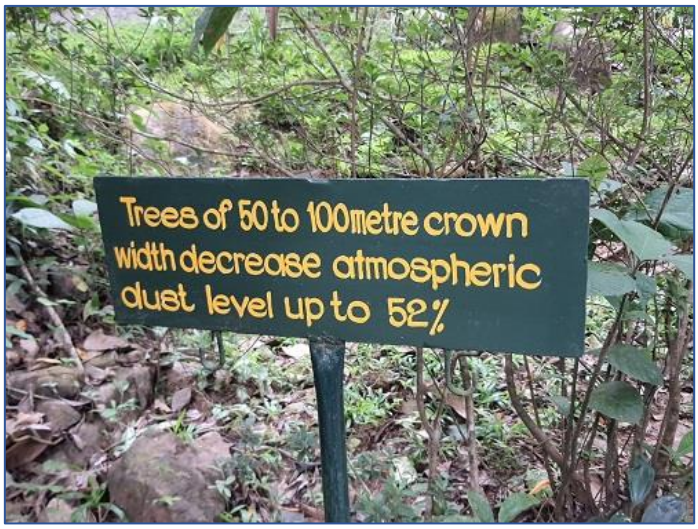
Trees having woody stem and having minimum girth of 10 cm in diameter at chest level of an average height person and height of about 3 m tall were counted and inventoried. Total 680 trees were counted, and 72 species of trees were reported. Ashoka was the dominant tree species with a count of 197 in the residential area.

Executive Summary

Tree density / 1000 residents = 525 trees (multiplication factor of 3.50/plot i.e. 1610 / 219*3.5; 4 people per family)

Tree density / 1000 cars = 869 trees (multiplication factor of 1.5 cars/family, there are 1150 cars in D block)

SN	Component	Residential area	Parks
1	Number of tree species	72	79
2	Number of individual trees	680	930
3	Dominant tree species	Ashoka (29% of all trees)	Ashoka (16% of all trees)
4	Young population (girth <19 inches)	277 Trees (40% of total trees)	Not measured



Dominant tree species in residential area

TREE SPECIES	NO. OF TREES
ASHOKA	197
YELLOW OLEANDER	37
ALSTONIA	36
AMALTAS	32
SIRIS	32
CHAMPA	27
NEEM	23
MANGO	22
WEEPING FIG	20
PAPDI	18
Total	**444**

Dominant tree species in Parks

TREE SPECIES	NO. OF TREES
ASHOKA	152
FISHTAIL PALM	121
NEEM	52
AMALTAS	40
WEEPING FIG	37
PEEPAL	35
SHEHTOOT	32
CHAMPA	30
SHEESHAM	30
SIRIS	28
Total	**557**

Dominant tree species overall (entire D Block)

TREE SPECIES	NO. OF TREES
ASHOKA	349
FISHTAIL PALM	127
NEEM	75
AMALTAS	72
SIRIS	60
CHAMPA	57
WEEPING FIG	57
ALSTONIA	54
YELLOW OLEANDER	48
SHEESHAM	39
Total	**938**

Top 10 dominant species make up 58% of all trees in D-Block

22% of all trees in D-Block are Ashoka trees

There are 47 tree species with less than 5 trees in D-Block

Tree species with less than 5 trees in D-block

TREE SPECIES	NO. OF TREES
RUBBER TREE	4
AMDA	4
BABOOL	4
ANJEER	4
KHAIR	4
KANDER	4
SAPTAPARNI	3
ANAAR	3
KEEKAR	3
AUSTRALIAN WATTLE	3
BOUGAINVILLEA	3
HARHAR	3
LASORA	3
TULIP TREE (INDIAN)	3
BANANA	2
LARGES STONIA	2
LAUREL FIG	2
MORINGA	2
KAST GAON	2
CALENDRIA	2
KATHAL (JACKFRUIT)	2
AMLA	2
CHEEKU	2
IMLI	2
KAMRAKH (STAR FRUIT)	2
MAHUA	2

BER	1
CHILBUL	1
CHYROZIA	1
FOXTAIL PALM	1
GOOLAR FIG	1
MADRAS THORN (JUNGRI)	1
MEHNDI	1
MOGRA	1
PALM PALMERA	1
SAUSAGE TREE (INVERTED FLOWERS)	1
SHARIFA	1
CHAKRESIA	1
CORAL TREE	1
DOMBIA	1
FIDDLE LEAF FIG	1
KHIRNI	1
MONKEYS PUZZLE	1
PANDA	1
SHAREEFA	1
TULIP TREE (AFRICAN)	1
WINTER CREEPER	1

Diseased trees

52 diseased trees were identified during the census

Tree No. from datasheet	Tree Name	Location
5	FISHTAIL PALM	FRONT OF D5
18	HARSINGAR	LEFT OF D10
19	YELLOW OLEANDER	LEFT OF D10 NEXT TO GATE
20	SHEHTOOT	LEFT OF D10 NEXT TO GATE
33	PAPDI	FRONT OF URINAL
34	SHEESHAM	NEAR URINAL RAMP
35	NEEM	NEAR URINAL (ADJACENT TO NALLAH)
40	PAPDI	OPEN SPACE NEAR URINAL
53	CHAMPA	ADJACENT D1 END
69	KACHNAR	FRONT OF D20
70	ALSTONIA	FRONT OF D18
78	HARSINGAR	FRONT OF D11/12
112	YELLOW OLEANDER	NALLAH, NEXT TO D37
120	KACHNAR	FRONT OF D33
131	YELLOW OLEANDER	NEXT TO NALLAH D38
132	YELLOW OLEANDER	NEXT TO NALLAH D38
133	YELLOW OLEANDER	NEXT TO NALLAH D38
134	YELLOW OLEANDER	NEXT TO NALLAH D38
135	MEHNDI	NEXT TO NALLAH D38
136	YELLOW OLEANDER	NEXT TO NALLAH D38
137	YELLOW OLEANDER	NEXT TO NALLAH D38
138	YELLOW OLEANDER	NEXT TO NALLAH D38
143	GULMOHAR	BACK OF D53
144B	YELLOW OLEANDER	NEXT TO NALLAH D54
144A	YELLOW OLEANDER	NEXT TO NALLAH D54
145	NEEM	NEXT TO NALLAH D54
146	YELLOW OLEANDER	NEXT TO NALLAH D54
147	YELLOW OLEANDER	NEXT TO NALLAH D54
148	ACACIA ARCHIBALD	NEXT TO NALLAH D54
161	PUTRANJIVA	NEXT TO D54 GATE
183	ASHOKA	FRONT OF D47
191	HARSINGAR	FRONT OF D56
193	ASHOKA	FRONT OF D55
196	MANGO	BEHIND D60 (SCHOOL WALL)
201	BAIKHAN	NEXT TO SCHOOL WALL
204	YELLOW OLEANDER	NEXT TO SCHOOL WALL
278	BEL	OUTSIDE DURGA MANDIR
331	MADRAS THORN (JUNGRI)	OUTSIDE D110

426	MANGO	IN FRONT OF D64
433	AMALTAS	IN FRONT OF D71
449	ASHOKA	BACKLANE NEXT TO D79
451	MANGO	SIDE OF D78
481	GUAVA	front of D101
483	ASHOKA	front of D-102
485	ASHOKA	front of D-102
549	ASHOKA	SIDE OF D154
558	ASHOKA	OUTSIDE D165
580	ASHOKA	OUTSIDE D179
590	HARSINGAR	OUTSIDE D186
595	HARSINGAR	SIDE OF D186
597	CHAMPA	SIDE OF D186
614	ASHOKA	FRONT OF D200

Few diseased trees have also been identified in MCD park (opposite PVR Saket)

Tree Girth (Young – Middle aged – Mature trees)

277 trees are young trees (girth measuring 19 inches or less) (40% of total trees)

152 trees are middle aged (girth measuring 20 inches to 39 inches) (23% of total trees)

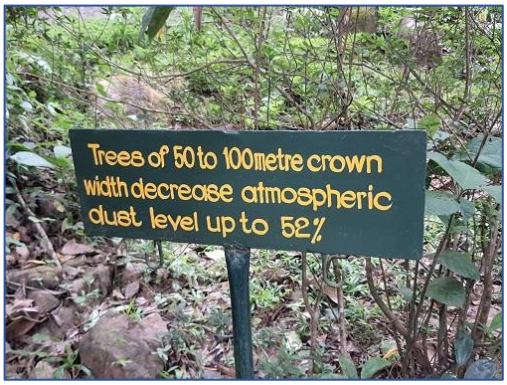
251 trees are mature trees (girth measuring 40 inches and above) (37% of total trees)

Open space around trees

419 trees (i.e. 62% of trees) have 2 sq feet or less open soil around them.

Only 4 trees were found to have 6 sq feet of open soil around them.

Tallest Tree



Tallest tree - Semal tree behind D57; measuring 70 feet in height

2nd tallest tree – Siris tree at gate of Vidya Niketan school; measuring 66 feet in height

Tree with thickest girth

Thickest girth – Alstonia (Saptaparni) tree in front of D3; measuring 290 inches

2nd thickest girth – Rubber tree at end of dhalao (D1); measuring 275 inches

Actions to be taken before end of September 2023

- Inform Horticulture deptt, Delhi municipal corporation about:
    - diseased trees
    - concretised trees
- Initiate phase II of saket17 tree census
- Create further awareness about importance of trees amongst Saket residents
- Submit this tree census report to all RWA's in Saket as well as to Deputy Commissioner, South Delhi Municipal corporation
- Carry out plantation drive in D block along with resident participation

About the Saket17 Tree Census and the people behind it:

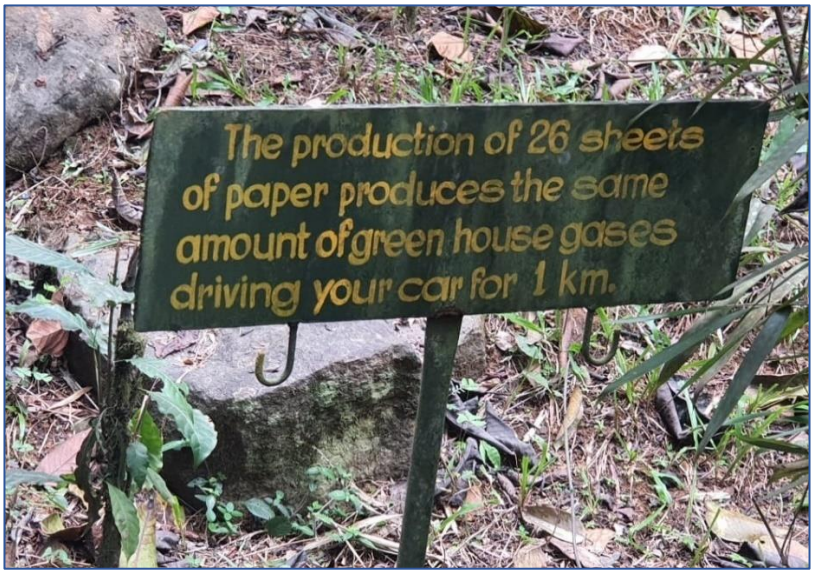
Prashant Sharma, while battling COVID-19 had the realisation that we are just custodians of Mother earth for our future generations – our children – and decided to dedicate himself to a bigger purpose i.e. to preserve and protect nature for our future generations. With that thought, he registered "Positive Action for Child and Earth Foundation" as a "not for profit startup" foundation focused on cleaner and greener India initiatives.

The foundation is duly registered with NITI Aayog (Darpan ID: DL/2022/0305972, and DPIIT (startupindia.gov.in) and is also a member of United Nations environment programme (unep.org). The foundation is also accelerating a circular water economy through greywater recycling and reuse as service water. Towards the same, a greywater recycling pilot project has been designed, built and operationalised in June 2023 in RPVV govt. school, Block B1 Vasant kunj with a capacity to recycle 60 cu m greywater/month.

For the tree census, the foundation enables interested residents to plan, mobilise, execute, and complete tree census on-the-ground and create tree census report with detailed analysis, benefits generated and many more metrics. We carry out the following activities -

- Neighbourhood involvement through formation of a Tree Committee
- Orientation training – Roles and responsibilities, safety, best practises, SOP's

- Prepare tree census Collateral Materials – format, what information to be collected and how
- Planning – Ensure there are enough volunteers to document the trees and their specifics. *How to go about it* guide.
- Tree Identification guide- Tree expert will help in identifying trees and its features
- Carrying out physical and scientific tree census for existing trees as per tree definition of the Ministry of Environment Forests and Climate Change (MoEFCC).
- Post tree census Tree health – pest treatment for unhealthy trees, stressed trees, removal of nails, tree-guards, de-concretisation through concerned authorities, restoration or removal of precariously standing trees
- Act – Rare trees/heritage trees/medicinal/herbal trees/tallest tree/thickest tree identified and all measures taken to protect them



- Gather and process data – Data crunching of data collected - tree census and inventory e-report, calculation of carbon sequestration, tree handbook with relevant data, action plan for plantation, removal of invasive species (on request)
- Tree census with mobile application using GIS/GPS technology, geo tagging (on request), operate and manage the tree census data

Get in Touch

Please do also feel welcome to follow us on social media –

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If you have comments or suggestions or if you would like to be part of our activities or would like to donate or direct us to any individual, organization or entity who would like to donate, partner or otherwise contribute to us, please feel welcome to also email us on **pash.childrensearth@gmail.com**.

Alternatively **call / wsapp Prashant (+91-9711086014) or Nalin (+91-9811109407)**

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