

Extension Activity

Report on

“Census of Heritage Trees of Chikhaldara Area”



By:

Department of Environmental Science

Academic Year 2021-22

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1. Title

Census of Heritage Trees of Chikhaldara Area

2. Goal / Objectives :

- To train college students for tree identification.
- To train college students for how to identify trees.
- To count the heritage trees of Chikhaldara Municipal Council Area.
- To know the concept of Heritage trees.
- To know the criteria for heritage trees.
- Conservation of heritage trees by demarcation.

Participants in the field workshop

Sr. No.	Name of student participated in extension activity	Duration	Beneficiaries	Beneficiary Number
1	Ku. Renuka M. Bharate M. Sc. Part II Mr . C. M. Jambhekar	December 2021 to May 2022	CEO , Municipal Council Chikhaldara , Dist. Amravati , Maharashtra State	02
2	Mr. Sachin Chawake Nodal Officer Heritage tree Census	December 2021 to May 2022	Nodal Officer Heritage tree Census	Complete population of Chikhaldara hill station

Concept

Chikhaldara Hill Station :Chikhaldara is 'Class C category' ULB having Population less than 40,000. • As of 2011 records, the total population of Chikhaldara has reached 5158. A decadal growth rate of about 9.49% was witnessed for a period between 2001 to 2011. Table below shows the population growth trend of Chikhaldara. • As per census records, the municipal area of Chikhaldara is approximately 3.94 Sq. Km i.e. 394 Hectare. Considering the census data of 2011, the Population Density is approximately 13 Person per hectare. •

Significant floating population is witnessed in the town as Chikhaldara is famous hill station. Although tourists come throughout the year with the peak in the month of July and August. As per data available with ULB floating population is 1,66,890 in year 2017 and is at peak in the month of July (30,473) and August (29,209). At per Census 2011, the town has 948 residential households / premises distributed into 18 wards • As per ULB records, about 569 Non-residential Premises are existing in the ULB jurisdiction. • The total road length in Town is 24.5 km. Out of the total road lengths, 73.88 % roads are width more than 3.5m, 24.9 % roads are width less than 3.5m. About 81.63 % roads are pucca roads and remaining 17.14 % are kutchra in nature. • The ULB currently produces total 0.74 MLD water. Out of the total water produced, 0.25 MLD water comes from Ground water sources (34%) and 0.49 MLD water comes from Surface water sources (66 %).

What are heritage trees?

Heritage Trees are trees that have been formally recognized by City Council for their unique size, age, historical or horticultural significance. Under the proposed amendment, a tree with an estimated age of 50 years or more shall be defined as a heritage tree. It may belong to specific species, which will be notified from time to time. Experts believe that in addition to the age, the state climate change department (which will be implementing the Tree Act), should also consider a tree's rarity, its botanical, historical, religious, mythological and cultural importance in defining a heritage tree. The local Tree Authority will have to ensure tree census to be carried out every five years along with counting of heritage trees. There are a range of criteria that designate a tree as a heritage tree. These attributes—both material and non-material—makes the tree stand out. The material attributes could be age or size of the tree. It could also be the result of the form or shape of the tree. Further, it could be that the tree is a rare species or a tree at risk of being lost. The non-material criteria relate to cultural and aesthetic aspects. It could be that the tree has a historical or cultural association either with a person, an event or a place. It could also be a tree associated with myth or folklore. A comprehensive definition of a heritage tree by Aird (2005) is given below:

“A notable specimen because of its size, form, shape, beauty, age, color, rarity, genetic constitution, or other distinctive features; a living relic that displays evidence of cultural modification by native or non-native people, including strips of bark or knot-free wood removed, test hole cut to determine soundness, furrows cut to collect pitch or sap, or blazes to mark a trail; a prominent community landmark; a specimen associated with a historic person, place, event or period; a representative of a crop grown by ancestors and their successors that is at risk of disappearing from cultivation; a tree associated with local folklore, myths, legends or traditions; a specimen identified by members of a community as deserving heritage recognition.”

Under the proposed amendment, a tree with an estimated age of 50 years or more shall be defined as a heritage tree. The Maharashtra government will make amendments to the Maharashtra (Urban Areas) Protection and Preservation of Trees Act of 1975, to introduce provisions for the protection of 'heritage trees'.

Many of the heritage trees especially the Ficus are keystone species in the environment. **The old trees serve as important roosting, nesting sites or as a food source for many species of wildlife.**

The major criteria for heritage tree designation are **age, rarity, and size, as well as aesthetic, botanical, ecological, and historical value.** Heritage tree ordinances are developed to place limits upon the removal of these trees.

Heritage trees in India

In Bengaluru city, the capital of Karnataka, is situated a 150 feet tall New Caledonian Pine or Cook Pine (also known in Asia as the Christmas tree) (*Araucaria columnaris*).

1. In Bengaluru is the DoddaAalada Mara or the Big Banyan (*Ficus benghalensis*) estimated to be around 400 years old and whose canopy supported by aerial roots extends over 4 acres.
2. There are other famous banyans across the country such as the 550-year-old banyan in the BalSaman Palace in the desert city of Jodhpur, Rajasthan, that has a huge colony of bats roosting amongst its branches.
3. The banyan in Kolkata Botanical Garden, in Kolkata in West Bengal, with a canopy extending across 4.67 acres, and the 450-year-old banyan in Chennai, Tamil Nadu.
4. Another ancient banyan is found inside the Allahabad Fort and is protected by the Indian Army. The tree is visited by hundreds of pilgrims during the KumbhMela, which is held once in 12 years.
5. A tamarind tree in Gwalior, in the central Indian state of Madhya Pradesh, is planted on the tomb of Tansen, the famous singer and one of the jewels in the court of emperor Akbar.
6. Tamarind stands in the premises of the Osmania General Hospital in Hyderabad, Telangana, with a plaque that says, "This tree saved 150 lives".
7. While Dehra Dun may still be a small town, heritage trees are also present in crowded megacities such as Mumbai, the business capital of India and capital of the Maharashtra state. Scattered across the city are around 120 baobabs (*Adansoniadigitata*), African trees believed to have been brought to India a thousand years ago by Abyssinian and Portuguese traders. These are extremely rare 'green monuments' and are classified as to be protected according to a tree census conducted of trees in Mumbai.

The Context

Heritage Trees are trees that have been formally recognized by City Council for their unique size, age, historical or horticultural significance.

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Results of Extension activity:

Heritage Trees Age wise

Sr. No.	Name of tree	50-60	60-80	80-100	100-150	150-200	More than 200
1	<i>Agathisrobusta</i>				150		
2	<i>Pinusroxburji</i>				120		
3	<i>Arucariabidwai</i>					200	
4	<i>Ficusbengalensis</i>			100			
5	<i>Ficusreligiosa</i>		75				
6	<i>Cactus tree</i>			80-85	125		
7	<i>Toonaciliata</i>		75				
8	<i>Acrocarpusfraxinifolius</i>		80				
9	<i>Cupressusemipervense</i>				120		
10	<i>Eucalyptus obliqua</i>			100-120			
11	<i>Mangiferaindica</i>		75-80				
12	<i>Eugenia jambolana</i>		75				
13	<i>Lagerstomiaparviflora</i>	55					
14	<i>Caryearborea</i>	50					
15	<i>Grewiarobusta</i>		75				
16	<i>Coffeaarabica</i>				150		
17	<i>Artocarpusheterophyllus</i>		75				
18	<i>Mallotusphilipense</i>	55					
19	<i>Spathodiacampanulata</i>		65-70				
20	<i>Terminaliabelerica</i>	50	80				

Heritage Trees Numbers in Chikhaldara Hill Station :

Sr. No.	Name of tree	Number	% Distribution
1	<i>Agathisrobusta</i>	02	0.52
2	<i>Pinusroxburghi</i>	08	2.10
3	<i>Arucariabidwai</i>	05	1.30
4	<i>Ficusbengalensis</i>	09	2.36
5	<i>Ficusreligiosa</i>	10	2.4
6	<i>Cactus tree</i>	01	0.26
7	<i>Toonaciliata</i>	10	2.4
8	<i>Acrocarpusfraxinifolius</i>	70	18.56
9	<i>Cupressussemipervense</i>	10	2.4
10	<i>Eucalyptus obliqua</i>	10	2.4
11	<i>Mangiferaindica</i>	28	7.36
12	<i>Eugenia jambolana</i>	55	14.47
13	<i>Lagerstomiaparviflora</i>	01	0.26
14	<i>Caryearborea</i>	10	2.4
15	<i>Grewiarobusta</i>	21	5.52
16	<i>Coffearabica</i>	100	26.31
17	<i>Artocarpusheterophyllus</i>	05	1.30
18	<i>Mallotusphilipense</i>	10	2.4
19	<i>Spathodiacampanulata</i>	02	0.52
20	<i>Terminaliabelerica</i>	10	2.4
		380	

Heritage trees Native and Exotic trees %

Sr. No.	Native plants number	% of native heritage trees	Exotic heritage trees	% of exotic heritage trees	Remark
1	011	55 %			
2			09	45%	Exotic heritage trees % 50 , municipal corporation promotes plantation of native trees

Outcome of the Extension Activity

Heritage Trees are trees that have been formally recognized by City Council for their unique size, age, historical or horticultural significance

Heritage trees are important, of course, for their biological value, but so also for their cultural value. Heritage trees are historical art facts—connecting urban residents to the past and providing a sense of belonging in cities.

Individual wise Heritage Tree Count of Municipal Council Chikhaldara

1	Agathisrobusta	Pine tree	Forest garden
2	Pinusroxburgi	Pine tree	Forest garden
3	Arucariabidwai	Khrismas tree	Forest garden
4	Ficusbengalensis	Wad	Devi point , near forest rest house , Circuit House , Tourism centre
5	Ficusreligiosa	Pimpal	Back of police station
6	Cactus tree	Cactus	Forest rest house
7	Toonaciliata	GorNeem	Police station , green valley
8	Acrocarpusfraxinifolius	Halige	College campus Sipna
9	Cupressussemipervense	Vidya	Electric rest house , Forest Rest house
10	Eucalyptus obliqua	Nilgiri	Back side of forest garden
11	Mangiferaindica	Mango	Circuit House
12	Eugenia jambolana	Jambhul	HVPM Campus
13	Lagerstomiaparviflora	Jarul	Tracery office opposite side
14	Caryearborea	Kumbhi	Rajakothi
15	Grewiarobusta	Silver oak	Upper Platue
16	Coffearabica	Coffee	Upper platue
17	Artocarpusheterophyllus	Jackfruit	Electricity rest house
18	Mallotusphilipense	Kumkum	Upper platue college campus Sipna
19	Spathodiacampanulata	Aakasshevaga , Shankasur	Near ITI Colege
20	Terminaliabelerica	behada	Hariken point
21	Old Phonix trees	Shindi trees	Opposite to police station
22	Jarul tree		Near treasury office
23	Amaltash trees	Cassia fistula	Wild distribution
24	Pechis tree	Peach	Rare distribution Gawalipura
25	Saitus bushes		Wild fruit trees
26	Old jambhul trees		
27	Litchi tree		Rare fruit tree of chikhaldara

Recommendations to Muncipal Council Chikhaldara authorities

- ❖ Muncipal Council Chikhaldara authorities can prepare the strategy plan for conservation of Heritage trees.
- ❖ Strategy plan : Long term & short term plan for trees conservation.
- ❖ Conservation of native trees.
- ❖ To promote native trees and to avoid exotic trees to maintain local diversity.
- ❖ Discussion in VrukshaPradhikaran Meeting regarding Heritage trees conservation.
- ❖ Conservation of old trees and to maintain their data.
- ❖ To promote afforestation programme of native trees

Heritage Conservative Measure:

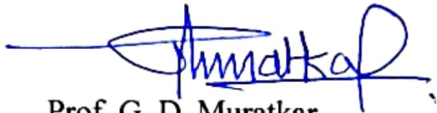
The Maharashtra government will **make amendments** to the Maharashtra (Urban Areas) Protection and Preservation of Trees Act of 1975, to introduce provisions for the protection of 'heritage trees'. The Maharashtra Cabinet also green-lighted the formation of the Maharashtra Tree Authority in local civic bodies and councils which will take all decisions regarding the protection of trees.

Tree Authority formation

- The amendments also make room for the formation of the Maharashtra State Tree Authority and also tree authority in local civic bodies and councils.
- The Tree Authority is tasked with "increasing the tree cover in urban areas and protecting the existing ones." Experts shall be a part of the local tree authority.
- Their knowledge and expertise will form the basis of decisions taken up by the authority.
- Ensure preparation of a tree plan and should aspire over the years to have 33 percent green belt in their area.

MYL
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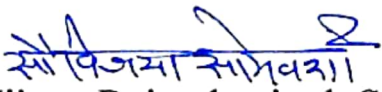
क्रमांक/चिनप/Heritage Tree Census/कावि- 100 /2022 दिनांक: -27/05/2022

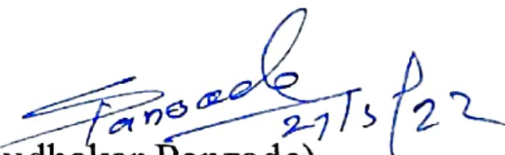
Reference:- Letter:- चिनप/स्वच्छता/कावि/311/21-22 दि.31/12/2021

Letter of Completion of Project on Census of Heritage Trees of Chikhaldara

With the reference to above reference it is to certify that, the Dept. of Enviromental Science Arts, Science & Commrece College, Chikhaldara completed the project works entitled "Census of Heritage Trees of Municipal Council Chikhaldara and submitted the project report on Dt.27.05.2022

Thanks for the co-operation & submission of Project. Especially thanks to Mr.Gajanan Muratkar Sir (HOD. Dept of EVS)


(Vijaya Rajendrasingh Somwanshi)
President,
Chikhaldara Municipal Council


(Sudhakar Panzade)
Chief Officer,
Chikhaldara Municipal Council

