



Bharatiya Vidya Bhavan's
Sardar Patel College of Engineering

(Government Aided Autonomous Institute Under Mumbai University)



Biodiversity Audit in Bharatiya Vidya Bhavan's Campus , Andheri West.

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INTRODUCTION

The Bharatiya Vidya Bhavan is a campus located in Andheri West, a neighbourhood in western Mumbai, India. It was established in 1946, K. M. Munshi was the founding president of the college. The Bharatiya Vidya Bhavan is not just an institution; it is a movement, a cause. Its objectives have been, from its inception, to encourage the study of all aspects of Indian Culture, to help in the reintegration of the latter in the light of modern conditions; and to aid the fundamentals of Aryan Culture. The Bhavan is thus a centre in which our ancient learning and modern intellectual aspirations combine to create a new spirit and literature, a new history and culture. The Campus is built upon 45 acres of land. It comprises institutes like SPCE, SPIT, SPJIMR, Bhavans College. It has volleyball and basketball courts, football pitches, a botanical garden, a lake, a nature adventure centre, and a Lord Shiva temple within the campus.

Over the last few decades, India has seen extraordinarily rapid industrial expansion and urbanization. As a result, we are witnessing devastating depletion of natural resources, damage to ecosystems and habitats, extensively polluted surface and ground water resources, as well as resources such as soil and air, among other things. This has almost resulted in irreversible alterations that may harm the ecosystem, accelerate climate change, and produce diseases that will be difficult to control if sufficient effective measures are not implemented on time or vigilance is not maintained. In developing countries such as India, educational institutions continue to play a vital role in encouraging social inclusion, economic progress, and environmental protection, and have so contributed to the nation's prosperity. The institutes are indirectly striving to attain sustainable development goals, which are becoming increasingly important in today's world.

The authority of Sardar Patel College of Engineering decided to take a stock of its Biodiversity. Green campus auditing is a systematic process that compares an organization's environmental performance to its environmental policies and government criteria. This audit process is beneficial to educational institutions in terms of keeping the campus nice and providing a clean environment for students, staff members, and management personnel. It is like a formal study of the environmental

consequences on a company's campus in accordance with government rules. The audit report may be effective in considerably improving the organization's campus by following the advice and suggestions provided in the report. This is for the first time, and it is expected, this will serve as the base-line data, for similar future assessments.

METHODOLOGY

The survey for the trees in the Bhavans Campus, Andheri, Mumbai was conducted during May 2023 to know their presence and distribution. All the plants growing inside the developed campus with Girth at Breast Height (GBH) were spotted, identified and measured for the GBH. For this purpose, entire developed part of the campus was loosely divided into areas:

- 1. Gate to SPJIMR Canteen**
- 2. SPIT & SPCE**
- 3. Workshop**
- 4. SPJIMR**
- 5. Incubator Cell , SPJIMR Mess , Bhavan's Staff Quarters**
- 6. Bhavan's College**
- 7. Bhavan's Ground**
- 8. Wadia School & SPJIMR Hostel**
- 9. SPCE Hostel**
- 10. Lake Area**
- 11. Administrative Building**
- 12. Bhavan's Adventure Centre**

All the recorded species of trees were recognised scientifically and presented here with their scientific names and with their numerical distribution pattern and girth.

SECTOR-WISE OBSERVATION:

Data collected and classified from all the sectors are provided below in Tables 1 – 12.

Table - 1. Gate To SPJIMR Canteen [girth in cm]

Trees Species	Basic Data	Girth Classes (in cms)		
	Total No.	<30	30 - 50	Over 50
<i>Terminalia catappa</i>	6	1	1	4
<i>Delonix regia</i>	24	7	4	13
<i>Lithocarpus edulis</i>	13			13
<i>Saraca asoca</i>	59	12	6	41
<i>Citrus maxima</i>	1			1
<i>Syzygium cumini</i>	3		2	1
<i>Mangifera indica</i>	23	11	1	11
<i>Moringa oleifera</i>	2			2
<i>Musa acuminata</i>	2	2		
<i>Bauhinia racemosa</i>	1			1
<i>Carica papaya</i>	4	4		
<i>Ficus religiosa</i>	12	3		9
<i>Vitex doniana</i>	1		1	
<i>Plumeria obtusa</i>	21	12	5	4
<i>Jasminum grandiflorum</i>	1	1		
<i>Pithecellobium dulce</i>	9	3		6
<i>Acacia auriculiformis</i>	5	1		4
<i>Asimina triloba</i>	4	2		2

<i>Aesculus flava</i>	1	1		
<i>Azadirachta indica</i>	5	4		1
<i>Zingiber officinale</i>	3	2	1	
<i>Prunus virginiana</i>	1	1		
<i>Koelreuteria paniculata</i>	3		2	1
<i>Chionanthus retusus</i>	1			1
Total	205			

Table – 2. SPIT & SPCE [girth in cm]

Trees Species	Basic Data	Girth Classes (in cms)		
	Total No.	<30	30 - 50	Over 50
<i>Tabernaemontana divaricata</i>	1		1	
<i>Alstonia scholaris</i>	3	1	1	1
<i>Citrus limon</i>	1	1		
<i>Veitchia Merrillii</i>	15	5	10	
<i>Annona reticulata</i>	3		1	2
<i>Ficus benghalensis</i>	3			3
<i>Artocarpus heterophyllus</i>	6	2		4
<i>Caryota mitis</i>	3		1	2
<i>Sindora echinocalyx</i>	1			1
<i>Latania lontaroides</i>	14	5	3	6
<i>Cascabela thevetia</i>	1		1	
<i>Albizia lebbeck</i>	1			1
<i>Cocos nucifera</i>	16	1	5	10

<i>Bombax ceiba</i>	4		2	2
<i>Capsicum sinense</i>	10	10		
<i>Terminalia catappa</i>	3			3
<i>Chambeyronia lepidota</i>	3	3		
<i>Casuarina equisetifolia</i>	5			5
<i>Philodendron bipinnatifidum</i>	6	6		
<i>Garcinia indica</i>	1			1
Total	100			

Table - 3. Workshop [girth in cm]

Trees Species	Basic Data	Girth Classes (in cms)		
	Total No.	<30	30 - 50	Over 50
<i>Trevis nudiflora</i>	1	1		
<i>Celastrus hindsii</i>	1	1		
<i>Bombax ceiba</i>	2			2
<i>Millettia pinnata</i>	1			1
<i>Pongamia pinnata</i>	5	1		4
<i>Citrus cavaleriei</i>	1	1		
<i>Neolamarckia cadamba</i>	1			1
<i>Pterospermum acerifolium</i>	1			1
<i>Areca catechu</i>	10	10		
Total	23			

Table - 4. SPJIMR [girth in cm]

Trees Species	Basic Data	Girth Classes (in cms)		
	Total No.	<30	30 - 50	Over 50
<i>Madhuca longifolia</i>	2			2
<i>Cinchona pubescens</i>	1			1
<i>Careya arborea</i>	1			1
<i>Pisonia grandis</i>	47	44	1	2
<i>Brownea grandiceps</i>	3	3		
<i>Bauhinia variegata</i>	12	6	1	5
<i>Psidium guajava</i>	1	1		
<i>Saraca asoca</i>	2	2		
<i>Schefflera actinophylla</i>	3	3		
<i>Ixora coccinea</i>	1	1		
<i>Hyophorbe lagenicaulis</i>	4			4
<i>Filicium decipiens</i>	1			1
<i>Tabebuia pallida</i>	1		1	
<i>Mimusops elengi</i>	1			1
<i>Spathodea campanulata</i>	3		1	2
<i>Tabebuia rosea</i>	9	1	4	4

<i>Lagerstroemia indica</i>	1	1		
<i>Ficus racemosa</i>	1			1
Total	94			

Table - 5. Incubator Cell, SPJMIR Mess, Bhavan's Staff Quarter [girth in cm]

Trees Species	Basic Data	Girth Classes (in cms)		
	Total No.	<30	30 - 50	Over 50
<i>Mangifera indica</i>	13	1		12
<i>Azadirachta indica</i>	3			3
<i>Tamarindus indica</i>	2			2
<i>Pithecellobium dulce</i>	2			2
<i>Terminalia catappa</i>	2			2
<i>Cocos nucifera</i>	15	2	1	12
<i>Ficus religiosa</i>	6			6
<i>Saraca asoca</i>	7	2		5
<i>Carica papaya</i>	7	5	1	1
<i>Artocarpus heterophyllus</i>	3			3
<i>Syzygium cumini</i>	3	1		2
<i>Myroxylon balsamum</i>	5	1	3	1
<i>Musa acuminata</i>	4		1	3
<i>Annona reticulata</i>	1		1	
<i>Phyllanthus emblica</i>	2		2	
<i>Royal poinciana</i>	5			5

<i>Caryota urens</i>	3	1		2
<i>Ficus racemosa</i>	4	3		1
<i>Moringa oleifera</i>	3			3
<i>Tabernaemontana divaricata</i>	2	2		
<i>Murraya koenigii</i>	1	1		
<i>Magnolia champaca</i>	1	1		
<i>Nerium oleander</i>	1	1		
<i>Couroupita guianensis</i>	1			1
<i>Madhuca longifolia</i>	4			4
<i>Plumeria rubra</i>	3	3		
<i>Bulbine abyssinica</i>	1			1
<i>Sterculia foetida</i>	1			1
Total	105			

Table - 6. Bhavans' College [girth in cm]

Trees Species	Basic Data	Girth Classes (in cms)		
	Total No.	<30	30 - 50	Over 50
<i>Roystonea regia</i>	15	1		14
<i>Plumeria rubra</i>	11	1	10	
<i>Saraca asoca</i>	20	4		16
<i>Anacardium occidentale</i>	1		1	
<i>Mangifera indica</i>	16	6	4	6
<i>Dalbergia sissoo</i>	1	1		
<i>Jungle geranium</i>	1	1		

<i>Terminalia catappa</i>	6	4	1	1
<i>Pritchardia pacifica</i>	13		2	
<i>Chrysalidocarpus lutescens</i>	2			2
<i>Lagerstroemia speciosa</i>	2			2
<i>Tabernaemontana divaricata</i>	2	2		
<i>Ficus racemosa</i>	1			1
<i>Tamarindus indica</i>	3			3
<i>Cocos nucifera</i>	42			42
<i>Bauhinia racemora</i>	1		1	
<i>Syzygium cumini</i>	2		2	
<i>Artocarpus heterophyllus</i>	3			3
<i>Azadirachta indica</i>	2			2
<i>Alstonia scholaris</i>	1		1	
Total	145			

Table - 7. Bhavans' Ground [girth in cm]

Trees Species	Basic Data	Girth Classes (in cms)		
	Total No.	<30	30 - 50	Over 50
<i>Couroupita guianensis</i>	2			2
<i>Lagerstroemia speciosa</i>	2			2
<i>Saraca asoca</i>	11	9		2
<i>Ficus religiosa</i>	5	2	1	2
<i>Mangifera indica</i>	16	6	3	7
<i>Dalbergia sissoo</i>	1	1		

<i>Caryota urens</i>	17	5		12
<i>Terminalia catappa</i>	7	4	1	2
<i>Leucaena leucocephala</i>	13	4		
<i>Royal poinciana</i>	12	3		9
<i>Annona reticulata</i>	1		1	
<i>Psidium guajava</i>	2	2		
<i>Tamarindus indica</i>	2			2
<i>Cocos nucifera</i>	17	2	1	14
<i>Ficus racemosa</i>	4	4		
<i>Syzygium cumini</i>	5	2		3
<i>Artocarpus heterophyllus</i>	1			1
<i>Azadirachta indica</i>	12	7	2	3
<i>Cascabela thevetia</i>	10	10		
<i>Hibiscus rosa-sinensis</i>	1	1		
<i>Alstonia scholaris</i>	4	1		3
<i>Carica papaya</i>	1	1		
<i>Ziziphus mauritiana</i>	1			1
<i>Ficus benghalensis</i>	1	1		
<i>Manilkara zapota</i>	1			1
<i>Areca catechu</i>	2			2
Total	151			

Table - 8. Wadia School & SPJIMR Hostel [girth in cm]

Trees Species	Basic Data	Girth Classes (in cms)		
	Total No.	<30	30 - 50	Over 50
<i>Mussaenda erythrophylla</i>	29	29		
<i>Millettia pinnata</i>	2		1	1
<i>Saraca asoca</i>	6	1		5
<i>Lagerstroemia speciosa</i>	2	2		
<i>Mangifera indica</i>	10	5	3	2
<i>Leucaena leucocephala</i>	1			1
<i>Couroupita guianensis</i>	6	5	1	
<i>Terminalia catappa</i>	1			1
<i>Murraya koenigii</i>	1	1		
<i>Royal poinciana</i>	2			2
<i>Ficus religiosa</i>	3			3
<i>Psidium guajava</i>	5	2		3
<i>Tamarindus indica</i>	1			1
<i>Cocos nucifera</i>	10	1		9
<i>Dyopsis lutescens</i>	3			3
<i>Annona reticulata</i>	1	1		
<i>Erythrina variegata</i>	1			1
<i>Azadirachta indica</i>	1			1
Total	85			

Table - 9. SPCE Hostel [girth in cm]

Trees Species	Basic Data	Girth Classes (in cms)		
	Total No.	<30	30 - 50	Over 50
<i>Ficus religiosa</i>	4			4
<i>Syzygium cumini</i>	3			3
<i>Thespesia populnea</i>	3			3
<i>Cocos nucifera</i>	5			5
<i>Tamarindus indica</i>	3			3
<i>Annona squamosa</i>	1	1		
<i>Aralia elata</i>	1			1
<i>Delonix regia</i>	4			4
<i>Psidium guajava</i>	1			1
<i>Azadirachta indica</i>	3			3
<i>Alstonia scholaris</i>	1			1
<i>Terminalia catappa</i>	2			2
<i>Hibiscus rosa-sinensis</i>	10	10		
<i>Mimusops elengi</i>	1	1		
<i>Mangifera indica</i>	2			2
<i>Saraca Asoka</i>	10			10
<i>Casuarina equisetifolia</i>	2			2
<i>Total</i>	56			

Table – 10. Lake Area [girth in cm]

Trees Species	Basic Data	Girth Classes (in cms)		
	Total No.	<30	30 - 50	Over 50
<i>Delonix regia</i>	4			4
<i>Terminalia catappa</i>	3			3
<i>Cocos nucifera</i>	11	1	1	9
<i>Roystonea regia</i>	2			2
<i>Prunus serrulata</i>	1			1
<i>Gustavia Superba</i>	1	1		
<i>Ceiba pentandra</i>	2			2
<i>Nushgreen Gular</i>	2	2		
<i>Filicium</i>	4	4		
<i>Saraca Asoca</i>	3	3		
<i>Magnolia champaca</i>	14	14		
<i>Bauhinia racemosa</i>	10	10		
<i>Golden Shower</i>	1		1	
<i>Ficus benghalensis</i>	1			1
<i>Quassia Indica</i>	12	12		
<i>Leucaena leucocephala</i>	1			1
<i>Brahea</i>	16		11	5
<i>Honey Locust</i>	4			4
<i>Thespeia Populnea Hibiscus</i>	1			1
<i>Areca Palm</i>	23	23		
<i>Vitex Lucens</i>	7	7		

<i>Oleander</i>	30	30		
<i>Hibiscus Tiliaceus</i>	4	4		
<i>Terminalia Bellirica</i>	5	5		
<i>Alstonia Marcophylla</i>	1			1
<i>Citrus × paradisi</i>	4	4		
<i>Paulownia Kawakami</i>	3			3
<i>Browena Grandiceps</i>	2	2		
<i>Pterocarpus santalinus</i>	1			1
<i>Caryota Mitis</i>	4	1	3	
<i>Mangifera indica</i>	4	3		1
<i>Ashoka</i>	3			3
<i>Averrhoa carambola</i>	4	4		
<i>Aralia</i>	2		1	1
<i>Rauwolfia caffra</i>	1			1
<i>Spanish Cherry</i>	1	1		
<i>Carica papaya</i>	1		1	
<i>Bambusa vulgaris</i>	12	3	9	
<i>Clinostigma</i>	18	18		
<i>Artocarpus heterophyllus</i>	1			1
<i>Phyllanthus emblica</i>	1	1		
<i>Moringa oleifera</i>	1		1	
<i>Manilkara zapota</i>	1	1		
<i>Lager Stroemia</i>	9	2		7
<i>Ulmus Minor</i>	1			1

<i>Dalbergia latifolia</i>	1	1		
<i>Syzygium cumini</i>	1			1
<i>Ficus religiosa</i>	1			1
<i>Calophyllum Inophyllum</i>	2			2
<i>Platymiscium</i>	3	3		
<i>Plumeria</i>	9	9		
<i>Holmskioldia</i>	2	2		
<i>Fraxinus Velutina</i>	1	1		
<i>Grevillea Robusta</i>	1		1	
<i>Combretum Leprosum</i>	3			
<i>Total</i>	261			

Table - 11. Administrative Building [girth in cm]

Trees Species	Basic Data	Girth Classes (in cms)		
	Total No.	<30	30 - 50	Over 50
<i>Azadirachta indica</i>	6	2	2	2
<i>Mangifera indica</i>	6	4	1	1
<i>Cocos nucifera</i>	5	1		4
<i>Litsea Bindoniana</i>	2			2
<i>Areca Palm</i>	5	5		
<i>Bahasa Indonesia</i>	1		1	
<i>Ashoka</i>	12	10		2
<i>Artocarpus altilis</i>	1			1
<i>Terminalia catappa</i>	1			1

<i>Ficus religiosa</i>	1			1
<i>Tamarindus indica</i>	1			1
<i>Syzygium cumini</i>	1			1
<i>Streblus aspar</i>	2		1	1
<i>Total</i>	44			

Table - 12. Bhavan's Adventure Centre [girth in cm]

Trees Species	Basic Data	Girth Classes (in cms)		
	Total No.	<30	30 - 50	Over 50
<i>Murraya koenigii</i>	1	1		
<i>Samanea saman</i>	3	1	1	1
<i>Elaeocarpus ganitrus</i>	1	1		
<i>Dalbergia lanceolaria</i>	1			1
<i>Mangifera indica</i>	4	4		
<i>Ficus benghalensis</i>	1			1
<i>Peltophorum pterocarpum</i>	1			1
<i>Castilla elastica</i>	1			1
<i>Couroupita guianensis</i>	1			1
<i>Cocos nucifera</i>	2			2
<i>Morinda citrifolia</i>	5	5		
<i>Ficus racemosa</i>	1	1		
<i>Caryota</i>	13	1		12
<i>Trachycarpus princeps</i>	4	4		
<i>Ochroma</i>	2	2		

<i>Peltophorum pterocarpum</i>	1			1
<i>Ceiba pentandra</i>	4			4
<i>Anacardium occidentale</i>	1	1		
<i>Ficus religiosa</i>	1	1		
<i>Lagerstroemia speciosa</i>	5			5
<i>Artocarpus heterophyllus</i>	1	1		
<i>Ficus glomerata</i>	4	3		1
<i>Delonix regia</i>	9			9
<i>Syzygium cumini</i>	1	1		
<i>Saraca asoka</i>	2			2
<i>Quercus humboldti</i>	1	1		
<i>Casuarina equisetifolia</i>	4	1		3
<i>Terminalia catappa</i>	6	1		5
<i>Spathodea campanulata</i>	1			1
<i>Total</i>	82			

RESULT

Based on the survey conducted the various species were tabulated and based on that the biodiversity index is calculated using following formula

$$D = 1 - \frac{\sum n(n-1)}{N(N-1)}$$

D- diversity index

N- Total no. of individual species

n- No. of individual species

Table - 13. Biodiversity index calculation

Tree Species	Total No. in Bhavan's Campus (n)	(n-1)	n(n-1)
Terminalia catappa	37	36	1332
Delonix regia	41	40	1640
Lithocarpus edulis	13	12	156
Saraca asoca	108	107	11556
Citrus maxima	1	0	0
Syzygium cumini	16	15	240
Mangifera indica	94	93	8742
Moringa oleifera	6	5	30
Musa acuminata	6	5	30
Bauhinia racemosa	1	0	0
Carica papaya	12	11	132
Ficus religiosa	33	32	1056
Vitex doniana	1	0	0
Plumeria obtusa	21	20	420
Jasminum grandiflorum	1	0	0
Pithecellobium dulce	11	10	110
Acacia auriculiformis	5	4	20
Asimina triloba	4	3	12
Aesculus flava	1	0	0
Azadirachta indica	32	31	992
Zingiber officinale	3	2	6

<i>Prunus virginiana</i>	1	0	0
<i>Koelreuteria paniculata</i>	3	2	6
<i>Chionanthus retusus</i>	1	0	0
<i>Tabernaemontana divaricata</i>	3	2	6
<i>Alstonia scholaris</i>	9	8	72
<i>Citrus limon</i>	1	0	0
<i>Veitchia Merrillii</i>	15	14	210
<i>Annona reticulata</i>	6	5	30
<i>Ficus benghalensis</i>	6	5	30
<i>Artocarpus heterophyllus</i>	15	14	210
<i>Caryota mitis</i>	20	19	380
<i>Sindora echinocalyx</i>	1	0	0
<i>Latania lontaroides</i>	14	13	182
<i>Cascabela thevetia</i>	11	10	110
<i>Albizia lebbeck</i>	1	0	0
<i>Cocos nucifera</i>	123	122	15006
<i>Bombax ceiba</i>	6	5	30
<i>Capsicum sinense</i>	10	9	90
<i>Chambeyronia lepidota</i>	3	2	6
<i>Casuarina equisetifolia</i>	11	10	110
<i>Philodendron bipinnatifidum</i>	6	5	30
<i>Garcinia indica</i>	1	0	0
<i>Trevis nudiflora</i>	1	0	0
<i>Celastrus hindsii</i>	1	0	0

Millettia pinnata	1	0	0
Pongamia pinnata	5	4	20
Citrus cavaleriei	1	0	0
Neolamarckia cadamba	1	0	0
Pterospermum acerifolium	1	0	0
Areca catechu	12	11	132
Madhuca longifolia	6	5	30
Cinchona pubescens	1	0	0
Careya arborea	1	0	0
Pisonia grandis	47	46	2162
Brownea grandiceps	3	2	6
Bauhinia variegata	12	11	132
Psidium guajava	9	8	72
Schefflera actinophylla	3	2	6
Ixora coccinea	1	0	0
Hyophorbe lagenicaulis	4	3	12
Filicium decipiens	1	0	0
Tabebuia pallida	1	0	0
Mimusops elengi	2	1	2
Spathodea campanulata	4	3	12
Tabebuia rosea	9	8	72
Lagerstroemia indica	1	0	0
Ficus racemosa	11	10	110
Tamarindus indica	12	11	132

<i>Syzygium cumini</i>	3	2	6
<i>Myroxylon balsamum</i>	5	4	20
<i>Phyllanthus emblica</i>	3	2	6
Royal poinciana	19	18	342
<i>Caryota urens</i>	20	19	380
<i>Tabernaemontana divaricata</i>	2	1	2
<i>Murraya koenigii</i>	2	1	2
<i>Magnolia champaca</i>	15	14	210
<i>Nerium oleander</i>	1	0	0
<i>Couroupita guianensis</i>	10	9	90
<i>Plumeria rubra</i>	23	22	506
<i>Bulbine abyssinica</i>	1	0	0
<i>Sterculia foetida</i>	1	0	0
<i>Roystonea regia</i>	17	16	272
<i>Anacardium occidentale</i>	2	1	2
<i>Dalbergia sissoo</i>	2	1	2
Jungle geranium	1	0	0
<i>Pritchardia pacifica</i>	13	12	156
<i>Chrysalidocarpus lutescens</i>	2	1	2
<i>Lagerstroemia speciosa</i>	11	10	110
<i>Bauhinia racemora</i>	1	0	0
<i>Leucaena leucocephala</i>	15	14	210
<i>Hibiscus rosa-sinensis</i>	11	10	110
<i>Ziziphus mauritiana</i>	1	0	0

Manilkara zapota	2	1	2
Mussaenda erythrophylla	29	28	812
Millettia pinnata	2	1	2
Murraya koenigii	1	0	0
Dyopsis lutescens	3	2	6
Erythrina variegata	1	0	0
Thespesia populnea	3	2	6
Annona squamosa	1	0	0
Aralia elata	1	0	0
Saraca Asoka	12	11	132
Prunus serrulata	1	0	0
Gustavia Superba	1	0	0
Ceiba pentandra	6	5	30
Nushgreen Gular	2	1	2
Filicium decipiens	4	3	12
Bauhinia racemosa	10	9	90
Golden Shower	1	0	0
Quassia Indica	12	11	132
Brahea	16	15	240
Honey Locust	4	3	12
Thespeia Populnea Hibiscus	1	0	0
Areca Palm	28	27	756
Vitex Lucens	7	6	42
Oleander	30	29	870

Hibiscus Tiliaceus	4	3	12
Terminalia Bellirica	5	4	20
Alstonia Marcophylla	1	0	0
Citrus × paradisi	4	3	12
Paulownia Kawakami	3	2	6
Browena Grandiceps	2	1	2
Pterocarpus santalinus	1	0	0
Ashoka	15	14	210
Averrhoa carambola	4	3	12
Aralia	2	1	2
Rauvolfia caffra	1	0	0
Spanish Cherry	1	0	0
Carica papaya	1	0	0
Bambusa vulgaris	12	11	132
Clinostigma	18	17	306
Lager Stroemia	9	8	72
Ulmus Minor	1	0	0
Dalbergia latifolia	1	0	0
Calophyllum Inophyllum	2	1	2
Platymiscium	3	2	6
Holmskioldia	2	1	2
Fraxinus Velutina	1	0	0
Grevillea Robusta	1	0	0
Combretum Leprosum	3	2	6

Litsea Bindoniana	2	1	2
Bahasa Indonesia	1	0	0
Artocarpus altilis	1	0	0
Streblus aspar	2	1	2
Samanea saman	3	2	6
Elaeocarpus ganitrus	1	0	0
Dalbergia lanceolaria	1	0	0
Peltophorum pterocarpum	2	1	2
Castilla elastica	1	0	0
Morinda citrifolia	5	4	20
Trachycarpus princeps	4	3	12
Ochroma	2	1	2
Ficus glomerata	4	3	12
Quercus humboldti	1	0	0
Total	1351		52316

The total number of trees in bhavans campus is 1351 and the biodiversity index is found to be 0.971. A Simpson's diversity index value of 0.97 indicates a high level of biodiversity in the given data. The index ranges from 0 to 1, where 0 represents no diversity (all individuals belong to a single species) and 1 represents maximum diversity (all species are equally abundant). A value close to 1 suggests a balanced and diverse ecosystem with a variety of species present. In this case, the high diversity index indicates that the Bhavan's Campus has a rich and diverse tree species composition.

TREE COMPOSITION AND GIRTH DISTRIBUTION

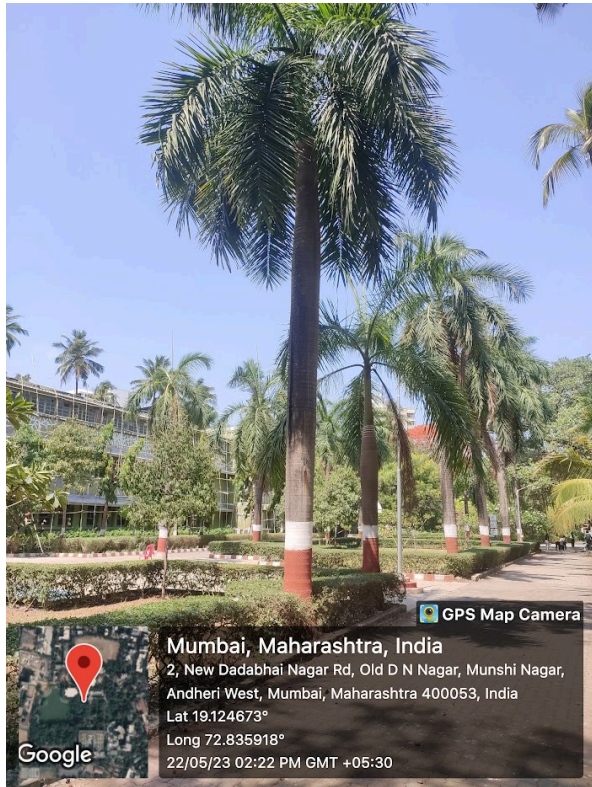
The present biodiversity report aims to provide an overview of the tree population in the designated area. Through meticulous surveys and data collection, it has been determined that a total of 1,351 trees representing 155 distinct species inhabit this region.

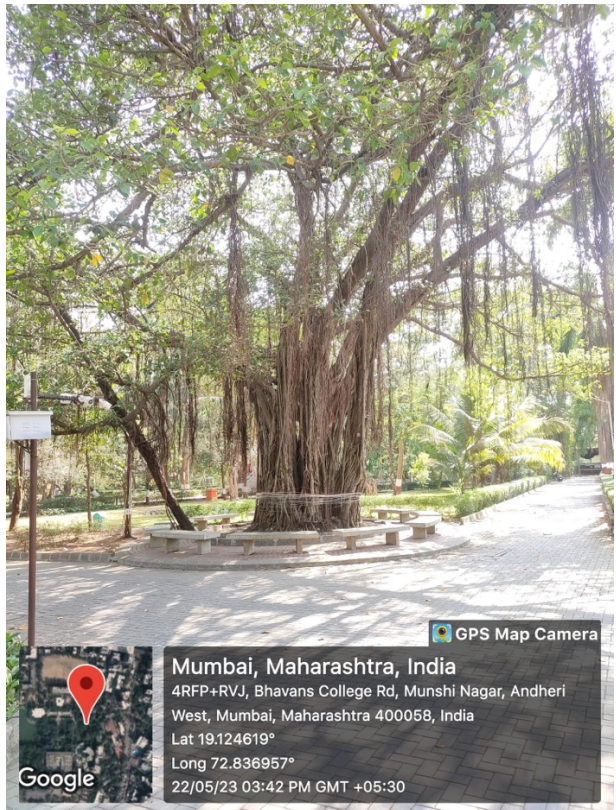
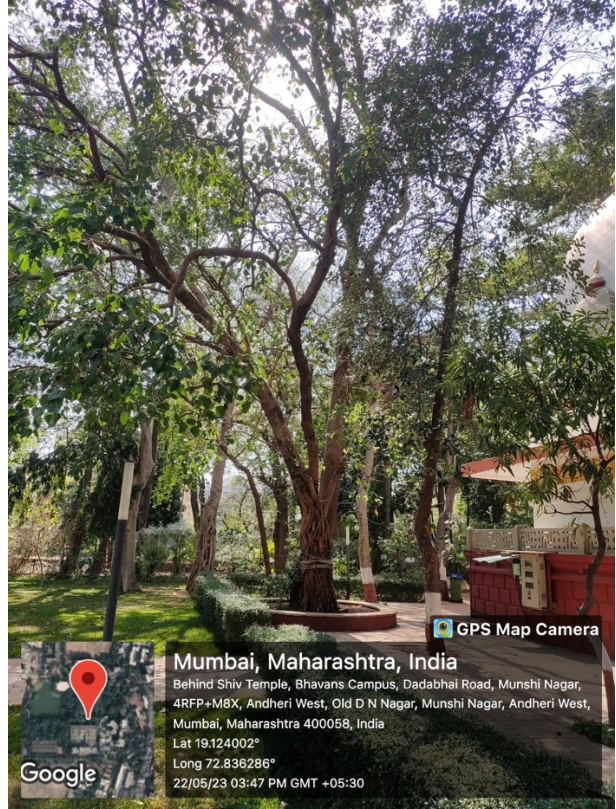
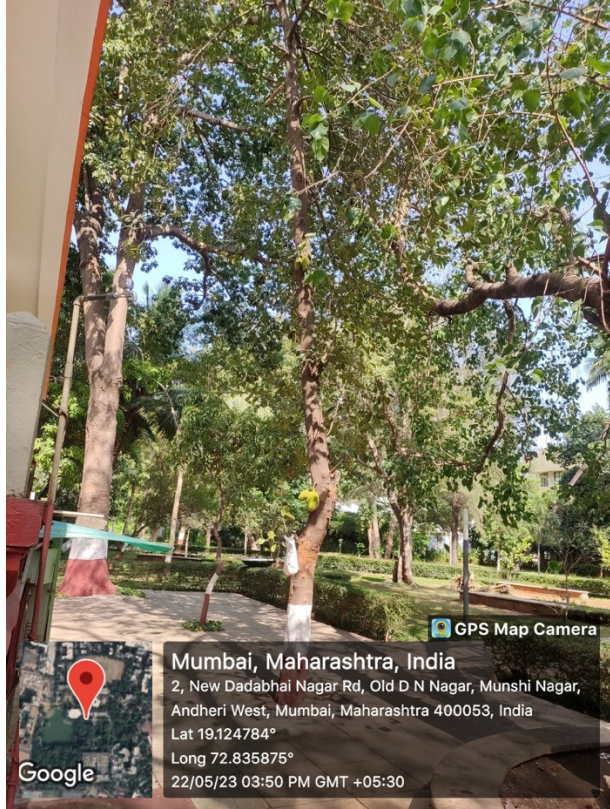
Table - 13. Girth Distribution

Girth (cm)	<30	30 - 50	Over 50
No. of trees	569	136	566
Percentage	42.12%	10.07%	41.89%

The girth distribution analysis reveals intriguing patterns, as approximately 42.12% of the trees possess a girth below 30cm, signifying their relatively young age or recent growth. Additionally, 10.07% of the trees fall within the 30-50cm girth category, indicating a moderate level of maturity. Remarkably, the majority of the tree population, comprising 41.89%, boasts a girth exceeding 50cm, symbolizing their advanced age and robust growth. These findings underscore the rich and diverse ecosystem in this area, highlighting the significance of maintaining and protecting the precious biodiversity it harbors.

ANNEXURE A: GEOTAG PICTURE











GPS Map Camera
Mumbai, Maharashtra, India
Shop no, 1, JP Rd, opp. Apna Bazar Road, Old D N Nagar,
D.N.Nagar, Andheri West, Mumbai, Maharashtra 400053, India
Lat 19.124267°
Long 72.834331°
22/05/23 02:54 PM GMT +05:30
Google



GPS Map Camera
Mumbai, Maharashtra, India
Shop no, 1, JP Rd, opp. Apna Bazar Road, Old D N Nagar,
D.N.Nagar, Andheri West, Mumbai, Maharashtra 400053, India
Lat 19.124218°
Long 72.834283°
22/05/23 02:54 PM GMT +05:30
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GPS Map Camera
Mumbai, Maharashtra, India
Mechanical Engineering Department, Sardar Patel College of Engineering,
Bhartiya Vidya Bhavans campus, Munshi Road, Old D N Nagar, Munshi
Nagar, Andheri West, Mumbai, Maharashtra 400058, India
Lat 19.123908°
Long 72.834689°
22/05/23 02:46 PM GMT +05:30
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Mumbai, Maharashtra, India
8th Floor, Sardar Patel Institute of Technology, Bhavan's Campus, Munshi,
Nagar, Old D N Nagar, Munshi Nagar, Andheri West, Old D N Nagar, Munshi
Nagar, Andheri West, Mumbai, Maharashtra 400058, India
Lat 19.123954°
Long 72.834848°
22/05/23 02:46 PM GMT +05:30
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