

Brookfield
Properties

BIODIVERSITY REPORT INDIA-2023

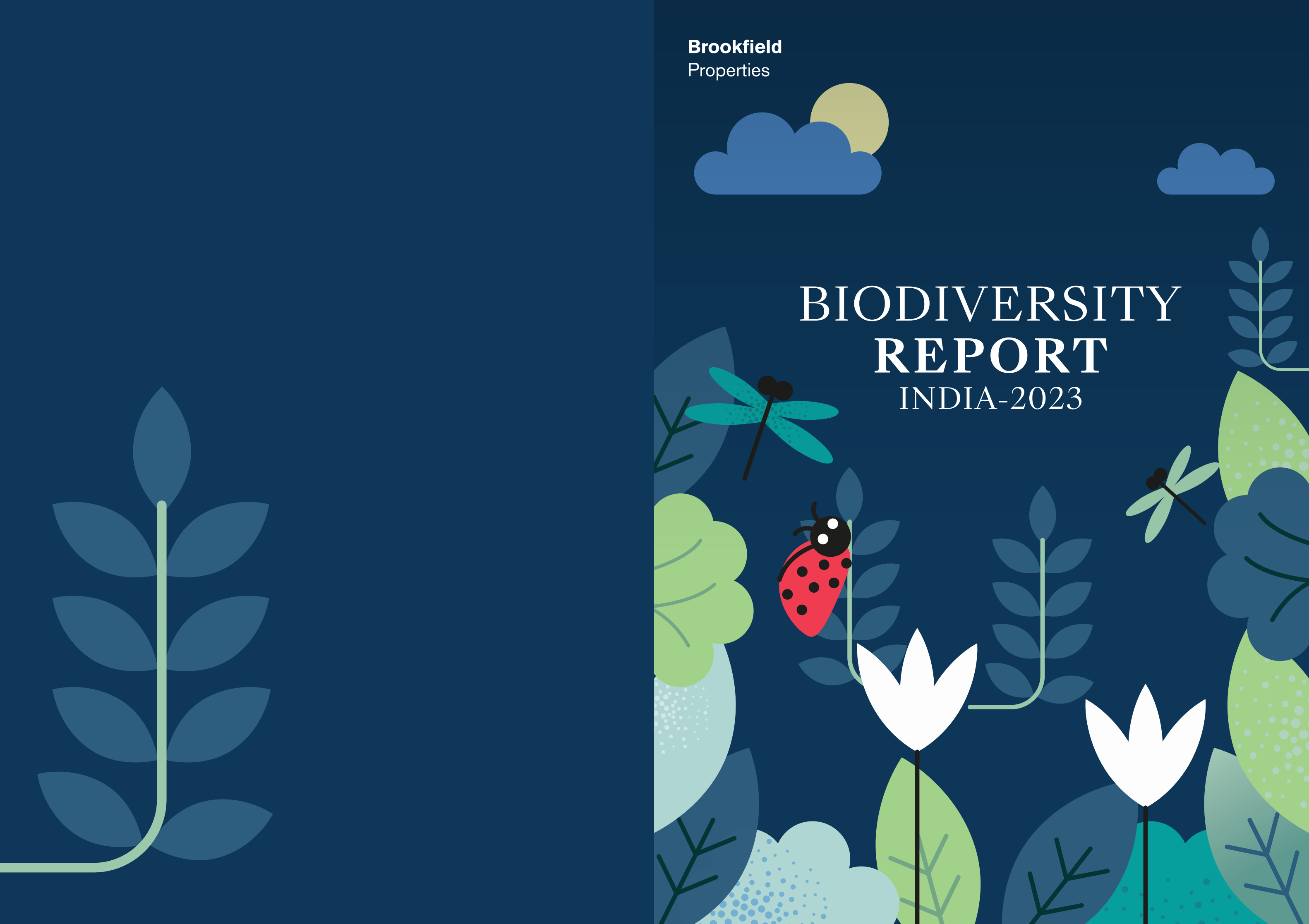


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About this report

At Brookfield Properties, we believe that building a better world is not only our mission, it's our responsibility. Our unwavering commitment to transform real estate through sustainable solutions underscores our dedication towards building a better tomorrow for people, businesses, communities, and our planet. This year, we focused our attention on a number of key areas where we were able to make an immediate positive impact. In line with our approach, the report provides an insight on the steps and initiatives undertaken to enhance biodiversity and reduce GHG emissions across our assets.

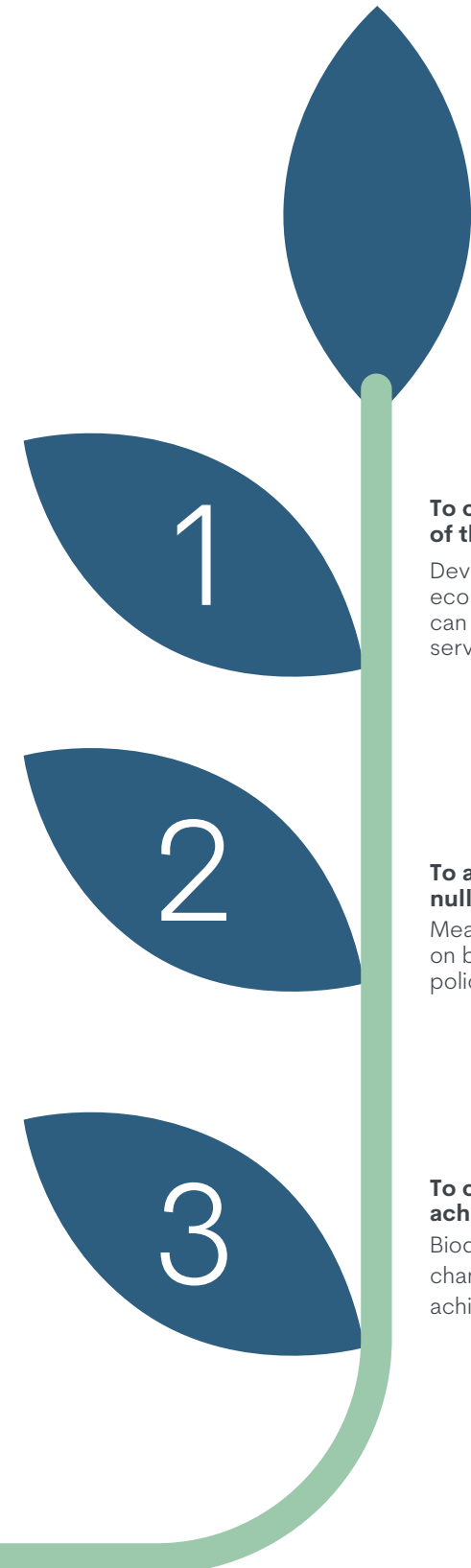
Biodiversity assessment was undertaken to understand the habitat, its floral and faunal components and their interactions with each other. Standard ecological methods were used for the study. During the study, key performance indicators were identified and a detailed Biodiversity Management Plan was developed.

- A diverse array of trees and shrubs was observed through an evaluation of various species and their individual quantities.
- The evaluation of herbs and grass was conducted using the extrapolation technique.
- Faunal species and their individual belonging to different taxa were noted through direct and indirect sighting.
- Interactions of the faunal species and their usage of the habitat were understood during the survey.



Objectives

The key performance indicators have been developed to assess the achievements of the set objectives which help in supporting the sustainable business environment under the purview of our biodiversity values.



To conserve and enhance biodiversity for the betterment of the environment and society at large scale

Developing an environment that provides a healthy ecosystem and nurtures the surrounding, biodiversity can help businesses gain immense benefit from the services provided by that ecosystem.

To achieve Net-Zero by 2040 or sooner by nullifying the impact on biodiversity

Measures will be taken to balance the impact caused on biodiversity by imbibing the approach in design, policy and actions.

To contribute in global climate change issues and achieve climate resilience

Biodiversity plays a vital role in mitigating climate change and impacts climate resilience which can be achieved through adopting nature-based solutions.





Strategies and action plan

The strategies proposed for enhancing biodiversity at the campuses are based on ecological approaches. They have been proposed with due consideration of the current condition of the campuses and their feasibility. For each strategy, action plans have been proposed with detailed implementation and management plan. The strategies developed to achieve our goals of enhancing biodiversity and contributing to climate regulations are:



Increase in Green cover



Support regional native floral species



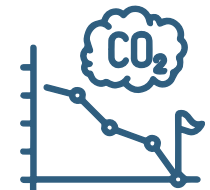
Enrich habitat quality



Create a habitat that supports the surroundings faunal species



Manage invasive species



Contribute to global climate regulations

Action plan



Inclusion of native species

Native plants are an important part of our natural heritage. An ecological approach should be adopted while enhancing the biodiversity of any area.



Canopy expansion

The size and stature of large trees species are particularly effective in urban areas in regulating the microclimate, attenuating and filtering water, attenuating noise, improving air quality and sequestering carbon.



Pergolas/green tunnels

A pergola is an outdoor feature forming a shaded passageway, walkway or sitting area. It can simply help in increasing green cover in the area and provide microhabitat for faunal species.



Green roofs

A green roof, or rooftop garden, is a vegetative layer grown on a rooftop. They supplement traditional vegetation without disrupting urban infrastructure, they take a neglected space and make it useful.



Green façade/hedge plantation

Green Facades can increase the green area by covering the wall's vertical section completely or partially with climbing plants through the support of a metal grid.



Increasing tree cover

Soil depth can greatly influence the type of plants that can grow in them. In the absence of appropriate soil depth, planters can be used to increase the tree cover.



Promoting heterogeneous environment

According to the "habitat heterogeneity hypothesis", heterogeneous environments offer greater niches and resources resulting in greater species richness.



Habitat for butterflies

Butterflies act as pollinators and a food source for other organisms. Increase in their population will support dependent species, influencing diversity and abundance.



Adding water features to enhance habitat for fauna

Water is one of the crucial components of a healthy ecosystem. Water holes attract several other faunal species like butterflies, bees and herpetofauna species etc.



Invasive species management

Invasive species management is an essential part of Biodiversity Management and conservation as it can help in sustaining native biodiversity.



Adopting low intensity lights

Intentional management and control of artificial lighting can help optimize energy efficiency, minimize light pollution and enhance the visual aesthetics of the park along with providing high benefits for biodiversity.



Awareness on biodiversity

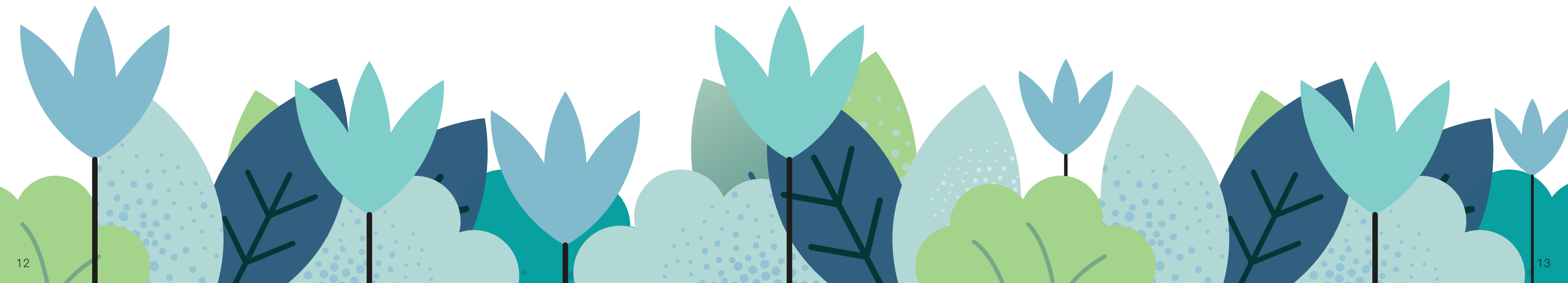
Awareness regarding existing biodiversity, the status of the wildlife population and threats to this population due to various human activities is essential for the active involvement of communities in conservation actions.



Key performance indicators

- Fragmentation analysis
- Species richness
- Native exotic ratios
- Abundance
- Simpson's Biodiversity Index
- Relative abundance of invasive species
- Carbon sequestration
- Urban Heat Island
- Green cover

Headline indicators	Operational indicators	Targets	Estimated timeline
Landscape connectivity	Fragmentation analysis	▪ Habitat connectivity to be increased by 95%	5-7 years
Biodiversity composition	Species richness	▪ Floral species to be increased by 10% ▪ Bird and butterfly species to be increased by 2%	12-15 years
	Native: exotic ratio	▪ More than 98% of flora should be native	5-7 years
Species population	Abundance	▪ Floral population to be increased by 40% ▪ Bird and butterfly population to be increased by 10%	12-15 years
Species diversity and evenness	Simpson's Biodiversity Index	▪ To be increased by 0.9%	10 years
Threats	Relative abundance of invasive species	▪ Less than 1% of the existing value	5 years (continuous monitoring and eradication)
Carbon storage	Carbon sequestration	▪ Equivalent to carbon emissions after captured/reduced by other sources	12-15 years
Climate regulation	Urban Heat Island	▪ Shaded area to be more than 75% from existing tree cover/newly planted saplings (includes roof and no roof areas)	12-15 years
	Green cover	▪ Total land area (ground + built structures) to be increased by 40%	12-15 years



Biodiversity Assessment Report

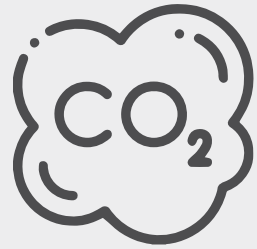
(BIRET Assets)



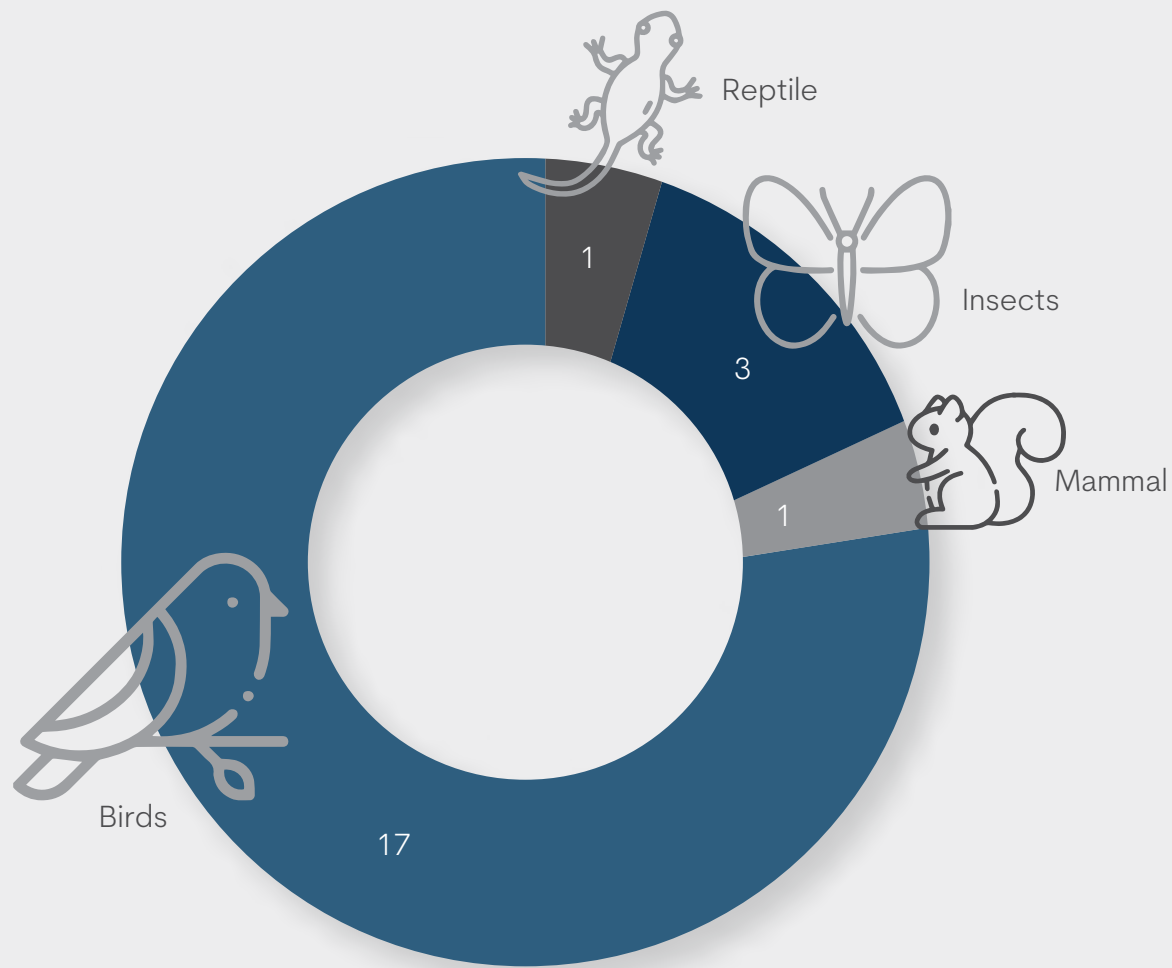
Candor TechSpace, Sector 21, Gurugram

Existing biodiversity profile

- Total 20% green cover with 97% ecological connectivity.
- Habitat comprising of 109 floral species.
- 42% floral species are native to India.
- Habitat supporting 22 faunal species.
- Simpson's Biodiversity Index (SBI) value for trees, shrubs, herbs and climbers was found to be 0.68, 0.80, 0.60 and 0.59 respectively.
- Less than 1% of invasive species were noted.



Total 82,904 Kg of Carbon Sequestered by 4,341 trees



- Green cover value > 40% of the land area (ground and built structures) is considered as good and 95% ecological connectivity is considered suitable for the faunal species.
- Assessment of the faunal species is based on a single-visit survey. The diversity and population count may vary.
- Simpson's Biodiversity Index value ranges between 0 to 1, a value close to 1 indicates higher diversity and evenness.
- The given Carbon Sequestration values are calculated for trees only and do not include other green patches comprising of shrubs, herbs and grass. Also, the Carbon Sequestration value is influenced by factors like the type of species, its girth and height.
- Currently Urban Heat Island (UHI) value has been represented on the right-side, increasing the green cover percentage can help in reducing the UHI effect.
- The images have been processed from USGS Earth Explorer, Landsat.



51 Tree species



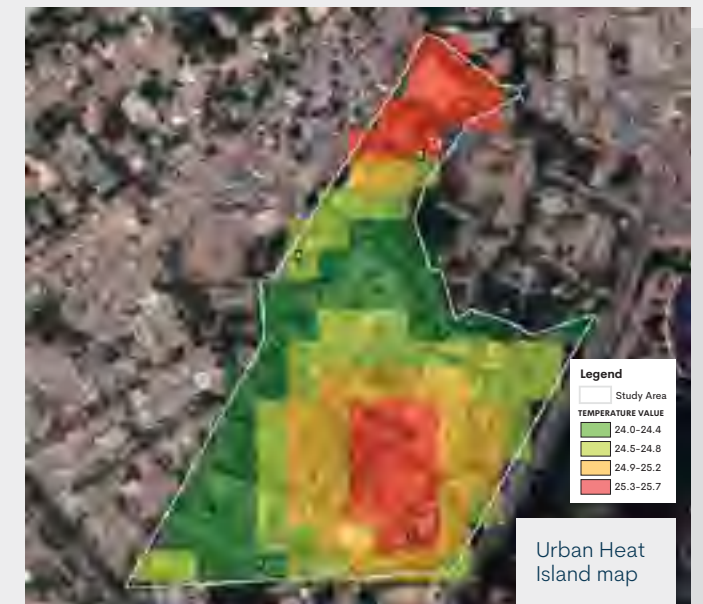
12 Shrub species



41 Herb species



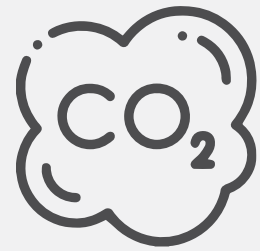
5 Climber species



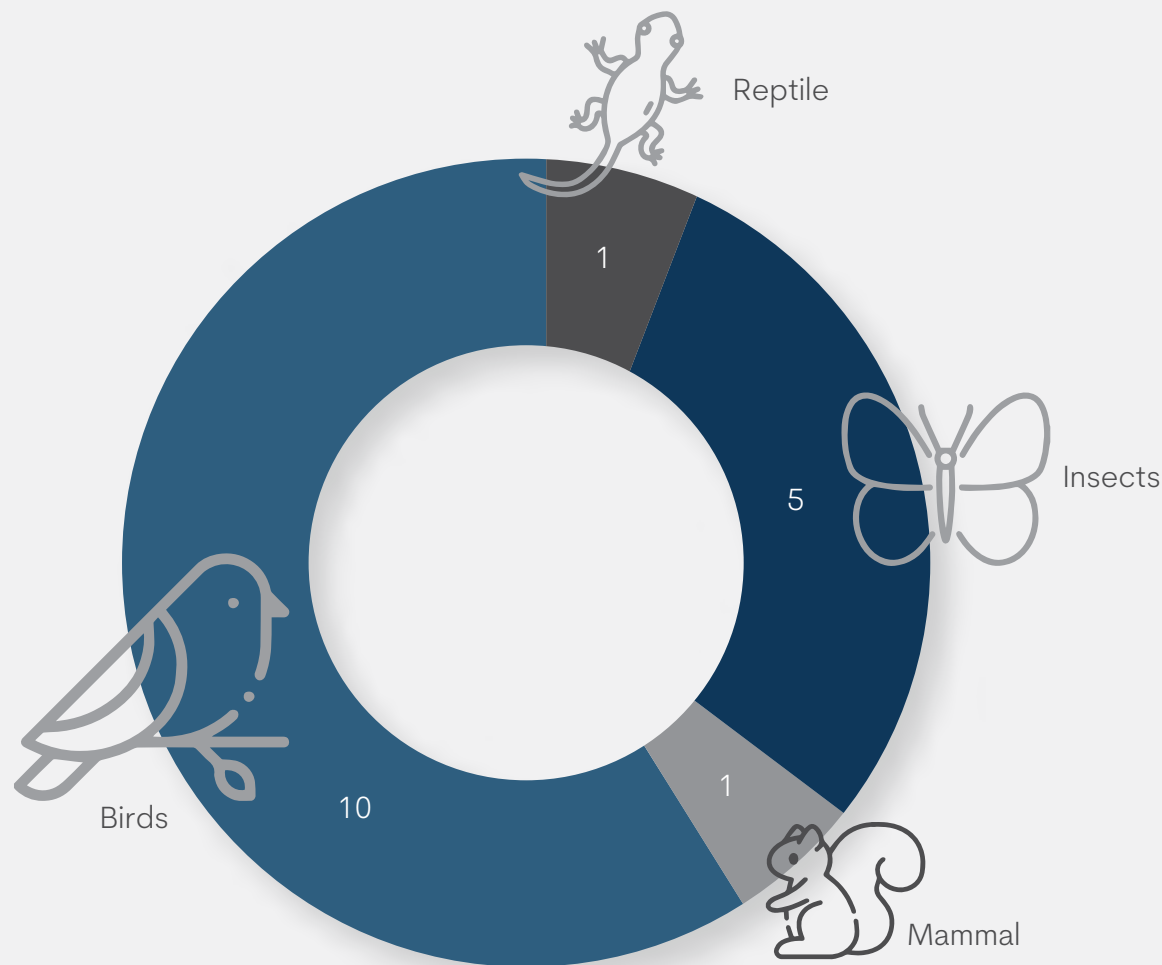
Candor TechSpace, Sector 62, Noida

Existing biodiversity profile

- Total 19% green cover with 100% ecological connectivity.
- Habitat comprising of 83 floral species.
- 49% floral species are native to India.
- Habitat supporting 17 faunal species.
- Simpson's Biodiversity Index (SBI) value for trees, shrubs, herbs and climbers was found to be 0.77, 0.50, 0.17 and 0.72 respectively.
- Less than 1% of invasive species were noted.



Total 51,297 Kg of Carbon Sequestered by 5,406 trees



- Green cover value > 40% of the land area (ground and built structures) is considered as good and 95% ecological connectivity is considered suitable for the faunal species.
- Assessment of the faunal species is based on a single-visit survey. The diversity and population count may vary.
- Simpson's Biodiversity Index value ranges between 0 to 1, a value close to 1 indicates higher diversity and evenness.
- The given Carbon Sequestration values are calculated for trees only and do not include other green patches comprising of shrubs, herbs and grass. Also, the Carbon Sequestration value is influenced by factors like the type of species, its girth and height.
- Currently Urban Heat Island (UHI) value has been represented on the right-side, increasing the green cover percentage can help in reducing the UHI effect.
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41 Tree species



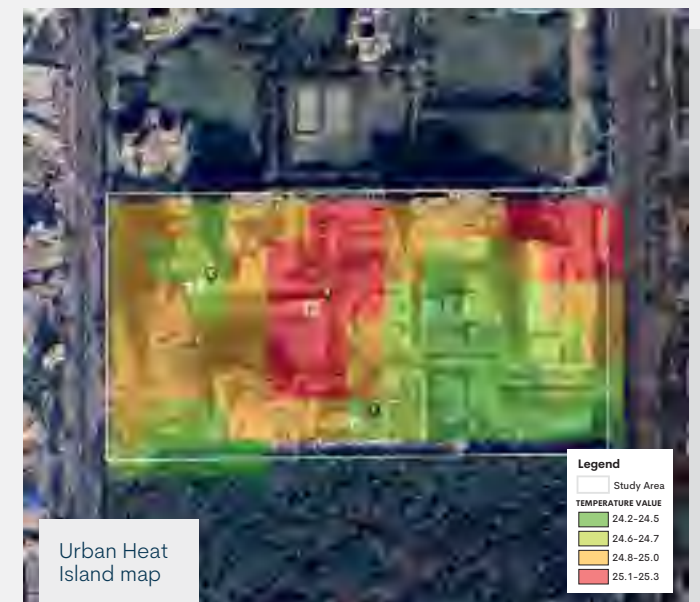
11 Shrub species



25 Herb species



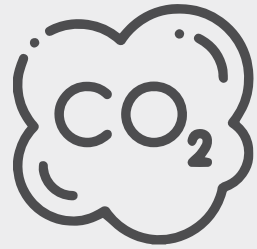
6 Climber species



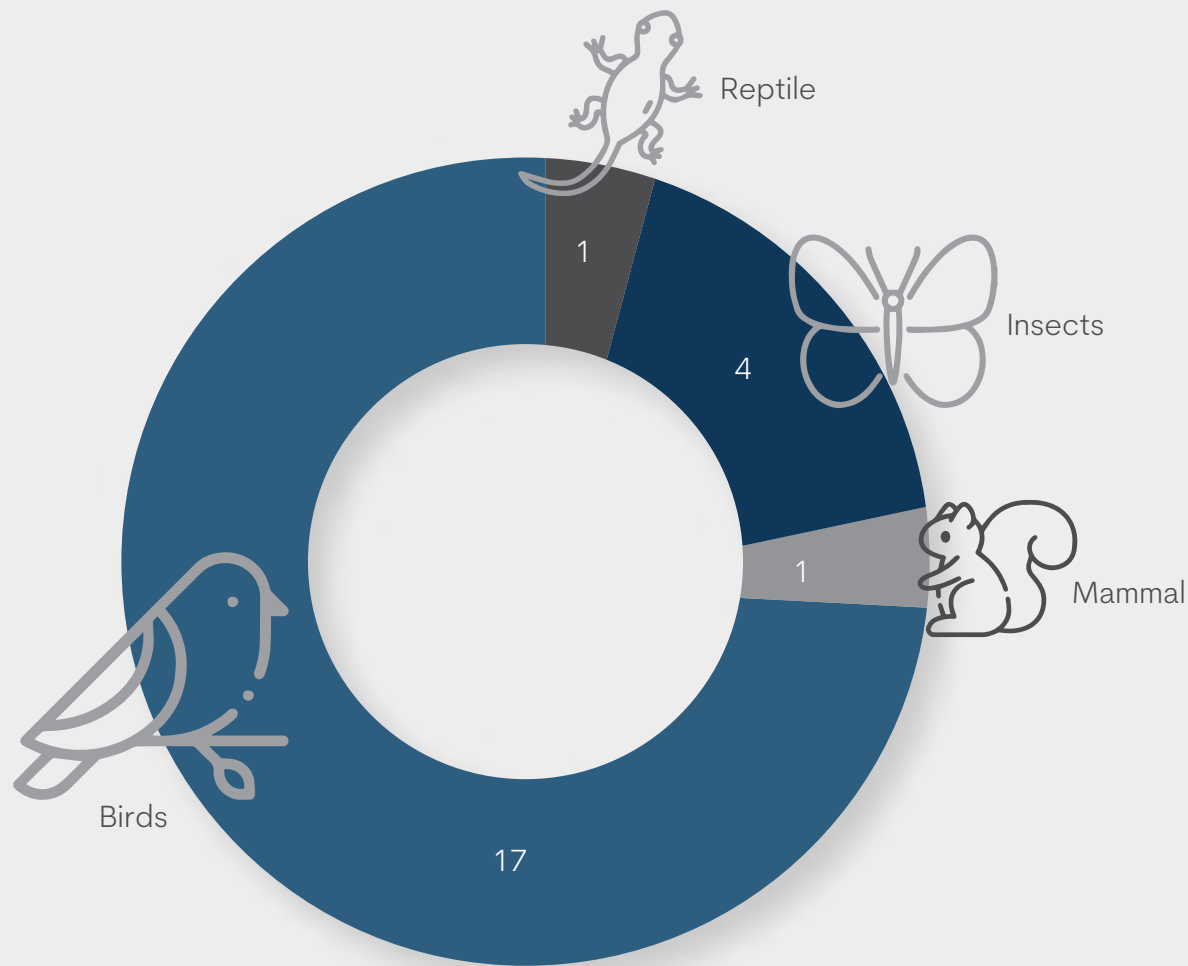
Candor TechSpace, Sector 135, Noida

Existing biodiversity profile

- Total 24% green cover with 100% ecological connectivity.
- Habitat comprising of 99 floral species.
- 42% floral species are native to India.
- Habitat supporting 23 faunal species.
- Simpson's Biodiversity Index (SBI) value for trees, shrubs, herbs and climbers was found to be 0.51, 0.50, 0.65 and 0.71 respectively.
- Less than 1% of invasive species were noted.



Total 5,44379 Kg of Carbon Sequestered by 5,964 trees



- Green cover value > 40% of the land area (ground and built structures) is considered as good and 95% ecological connectivity is considered suitable for the faunal species.
- Assessment of the faunal species is based on a single-visit survey. The diversity and population count may vary.
- Simpson's Biodiversity Index value ranges between 0 to 1, a value close to 1 indicates higher diversity and evenness.
- The given Carbon Sequestration values are calculated for trees only and do not include other green patches comprising of shrubs, herbs and grass. Also, the Carbon Sequestration value is influenced by factors like the type of species, its girth and height.
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42 Tree species



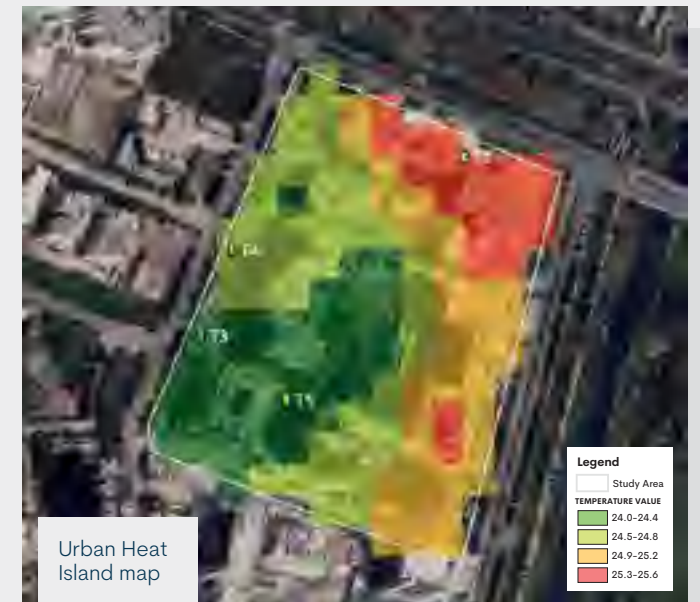
17 Shrub species



34 Herb species



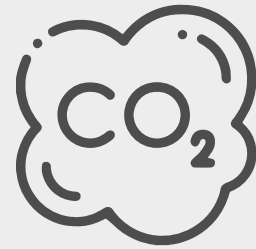
6 Climber species



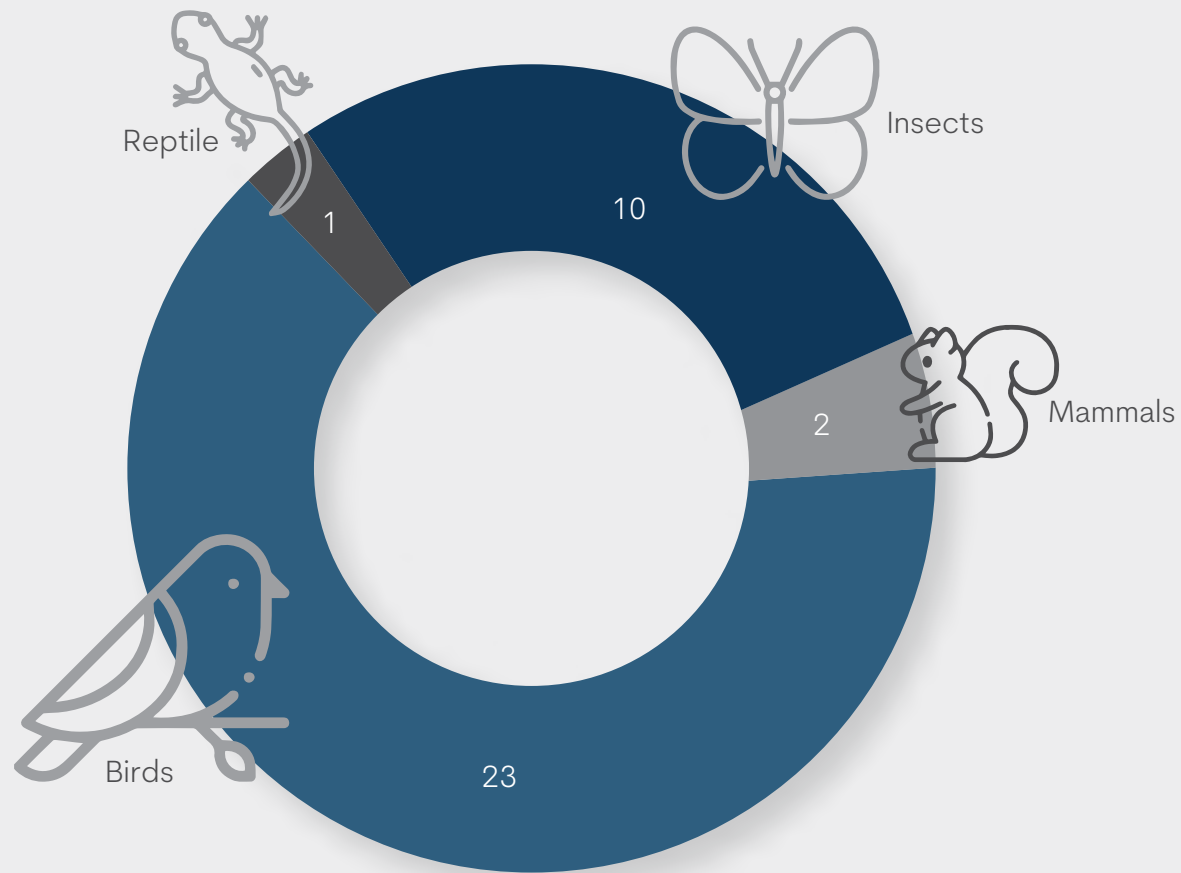
Candor TechSpace, Newtown, Kolkata

Existing biodiversity profile

- Total 38% green cover with 100% ecological connectivity.
- Habitat comprising of 164 floral species.
- 49% floral species are native to India.
- Habitat supporting 36 faunal species.
- Simpson's Biodiversity Index (SBI) value for trees, shrubs herbs and climbers was found to be 0.89, 0.89, 0.81 and 0.63 respectively.
- More than 1% of invasive species were noted.
- Sita Ashok (*Saraca asoca*) categorised as vulnerable under IUCN Red list of Threatened species is planted at the campus.
- Indian Grey Mongoose (*Herpestes edwards*) listed under Schedule I of the Wildlife Protection Act (WPA), Amendment, 2022 was observed at the campus.



Total 1,27,442 Kg of Carbon Sequestered by 3,715 trees



- Green cover value > 40% of the land area (ground and built structures) is considered as good and 95% ecological connectivity is considered suitable for the faunal species.
- Assessment of the faunal species is based on a single-visit survey. The diversity and population count may vary.
- Simpson's Biodiversity Index value ranges between 0 to 1, a value close to 1 indicates higher diversity and evenness.
- The given Carbon Sequestration values are calculated for trees only and do not include other green patches comprising of shrubs, herbs and grass. Also, the Carbon Sequestration value is influenced by factors like the type of species, its girth and height.
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64 Tree species



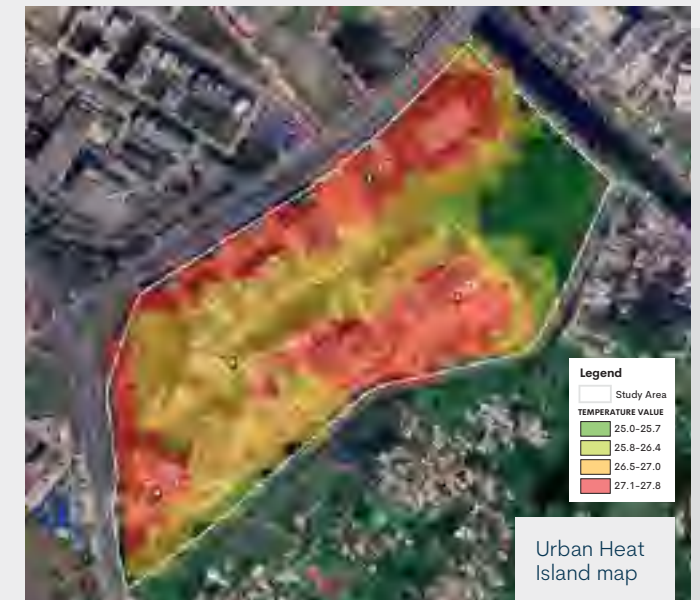
27 Shrub species



63 Herb species



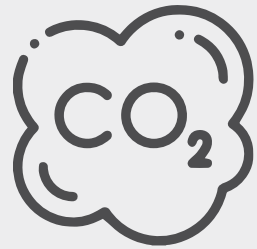
10 Climber species



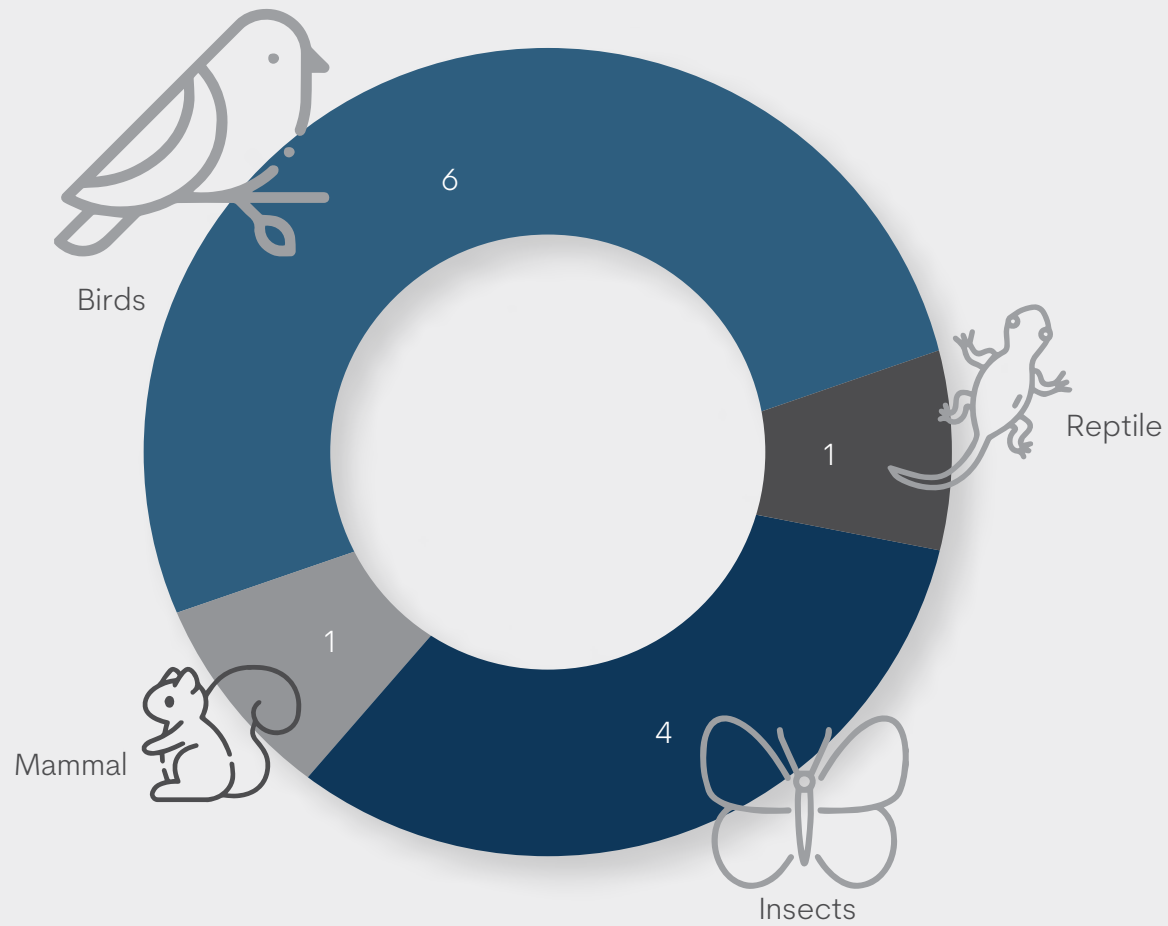
Kensington, Downtown Powai, Mumbai

Existing biodiversity profile

- Total 10% green cover with 80% ecological connectivity.
- Habitat comprising of 38 floral species.
- 45% floral species are native to India.
- Habitat supporting 12 faunal species.
- Simpson's Biodiversity Index (SBI) value for trees, shrubs, herbs and climbers was found to be 0.89, 0.64, 0.37 and 0.48 respectively.
- More than 50% of invasive species were noted.
- Sita Ashok (*Saraca asoca*) categorised as vulnerable under IUCN Red list of Threatened species is planted at the campus.



Total 6,081 Kg of Carbon Sequestered by 266 trees



- Green cover value > 40% of the land area (ground and built structures) is considered as good and 95% ecological connectivity is considered suitable for the faunal species.
- Assessment of the faunal species is based on a single-visit survey. The diversity and population count may vary.
- Simpson's Biodiversity Index value ranges between 0 to 1, a value close to 1 indicates higher diversity and evenness.
- The given Carbon Sequestration values are calculated for trees only and does not include other green patches comprising of shrubs, herbs and grass. Also, the Carbon Sequestration value is influenced by factors like the type of species, its girth and height.
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18 Tree species



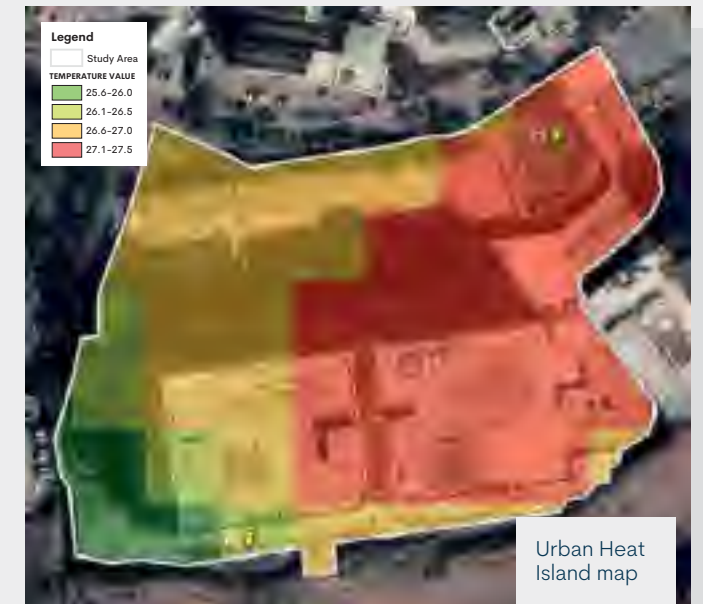
8 Shrub species



7 Herb species



5 Climber species





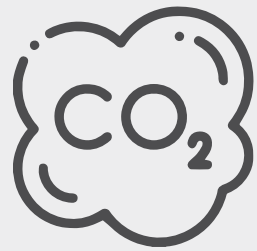
Biodiversity Assessment Report

(Non-BIRET Assets)

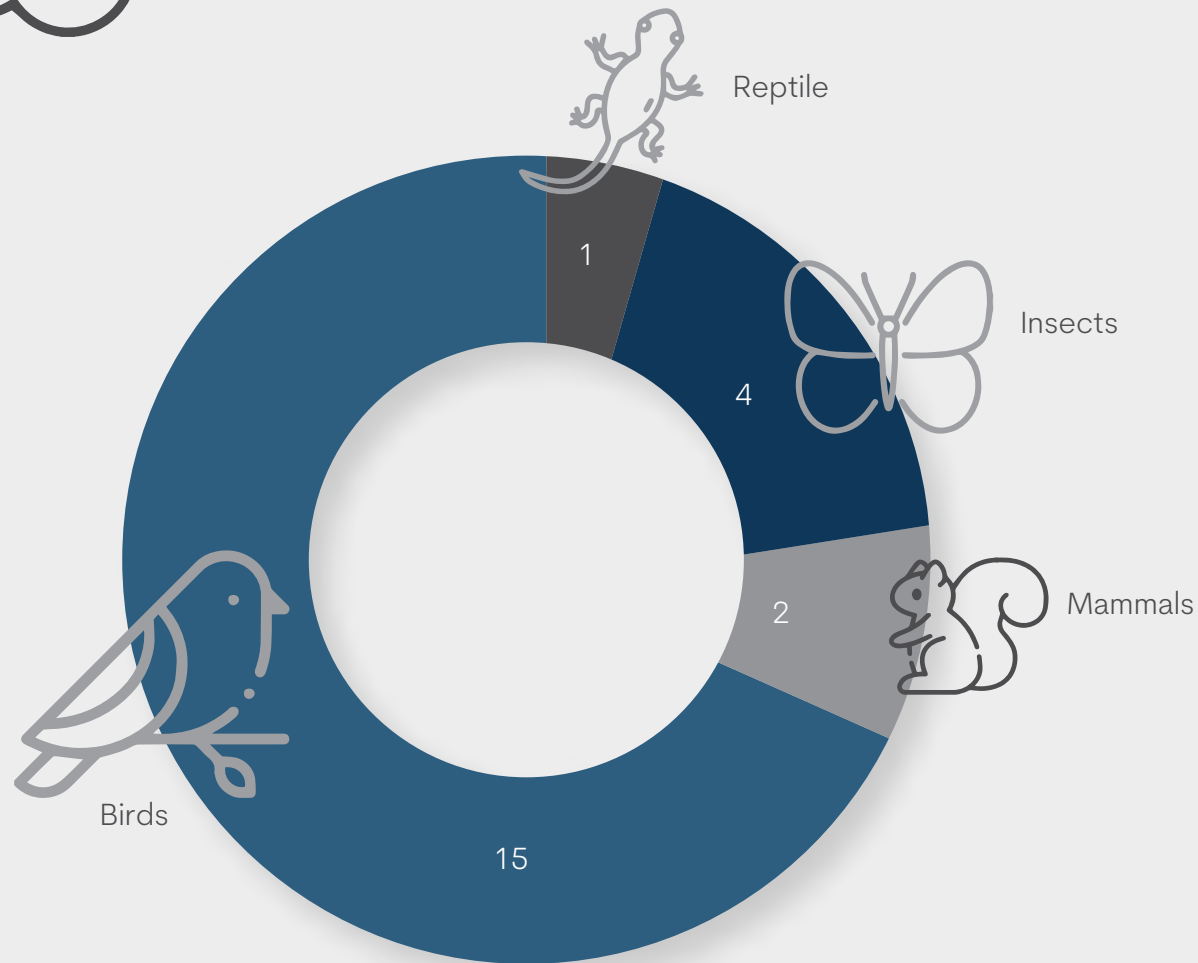
Candor TechSpace, Sector 48, Gurugram

Existing biodiversity profile

- Total 22% green cover with 97% ecological connectivity.
- Habitat comprising of 103 floral species.
- 40% floral species are native to India.
- Habitat supporting 22 faunal species.
- Simpson's Biodiversity Index (SBI) value for tree shrubs, herbs and climbers was found to be 0.75, 0.60, 0.72 and 0.88 respectively.
- Less than 1% of invasive species were noted.
- Indian Grey Mongoose (*Herpestes edwards*) under Schedule I of the Wildlife Protection Act (WPA), Amendment, 2022 was observed at the campus.



Total 41,214 Kg of Carbon Sequestered by 4,441 trees



- Green cover value > 40% of the land area (ground and built structures) is considered as good and 95% ecological connectivity is considered suitable for the faunal species.
- Assessment of the faunal species is based on a single-visit survey. The diversity and population count may vary.
- Simpson's Biodiversity Index value ranges between 0 to 1, a value close to 1 indicates higher diversity and evenness.
- The given Carbon Sequestration values are calculated for trees only and do not include other green patches comprising of shrubs, herbs and grass.
- Also, the Carbon Sequestration value is influenced by factors like the type of species, its girth and height.
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48 Tree species



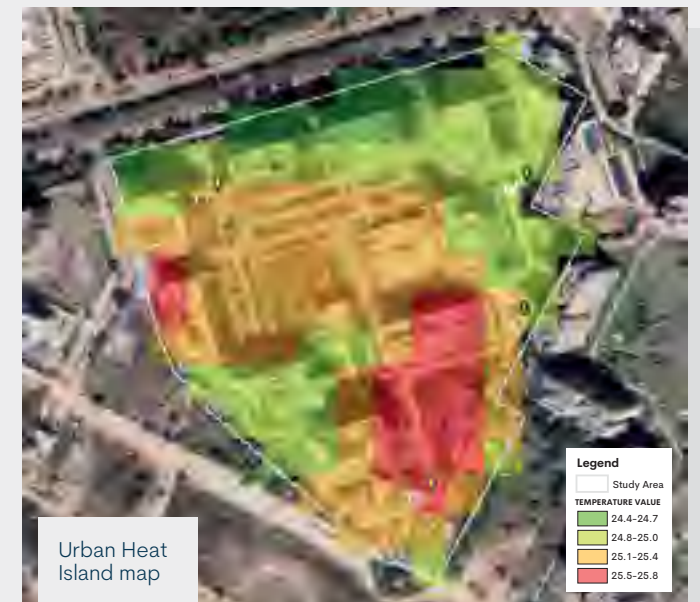
15 Shrub species



35 Herb species



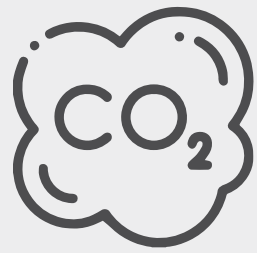
5 Climber species



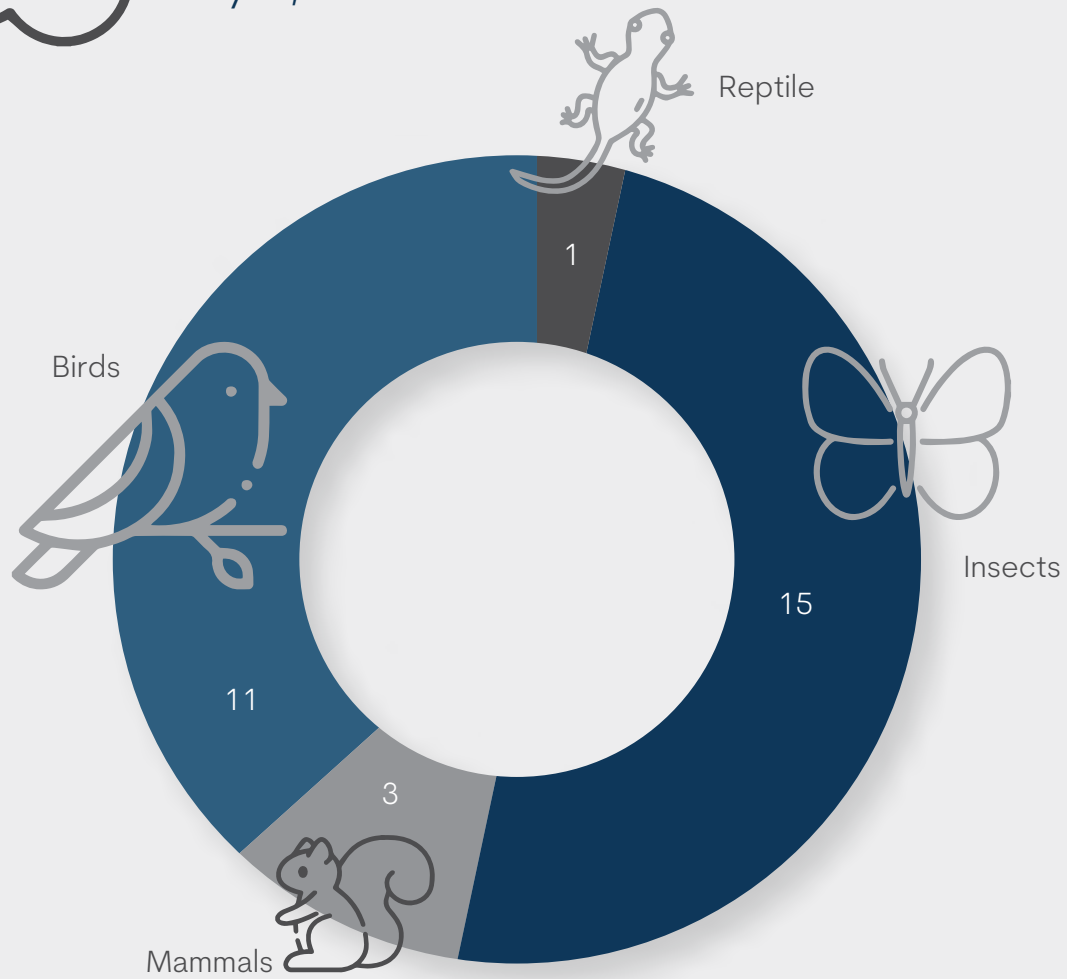
Ecospace, Outer Ring Road, Bengaluru

Existing biodiversity profile

- Total 17.5% green cover with 84% ecological connectivity.
- Habitat comprising of 83 floral species.
- 28% floral species are native to India.
- Habitat supporting 30 faunal species.
- Simpson's Biodiversity Index (SBI) value for trees, shrubs, herbs and climbers was found to be 0.79, 0.87, 0.50 and 0.79 respectively.
- Less than 1% invasive species were noted.
- Sita Ashok (*Saraca asoca*) categorised as vulnerable under the IUCN Red List of Threatened Species is planted at the campus.



Total 89,026 Kg of Carbon Sequestered by 1,410 trees



- Green cover value > 40% of the land area (ground and built structures) is considered as good and 95% ecological connectivity is considered suitable for the faunal species.
- Assessment of the faunal species is based on a single-visit survey. The diversity and population count may vary.
- Simpson's Biodiversity Index value ranges between 0 to 1, a value close to 1 indicates higher diversity and evenness.
- The given Carbon Sequestration values are calculated for trees only and do not include other green patches comprising shrubs, herbs and grass. Also, the Carbon Sequestration value is influenced by factors like the type of species, its girth and height.
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40 Tree species



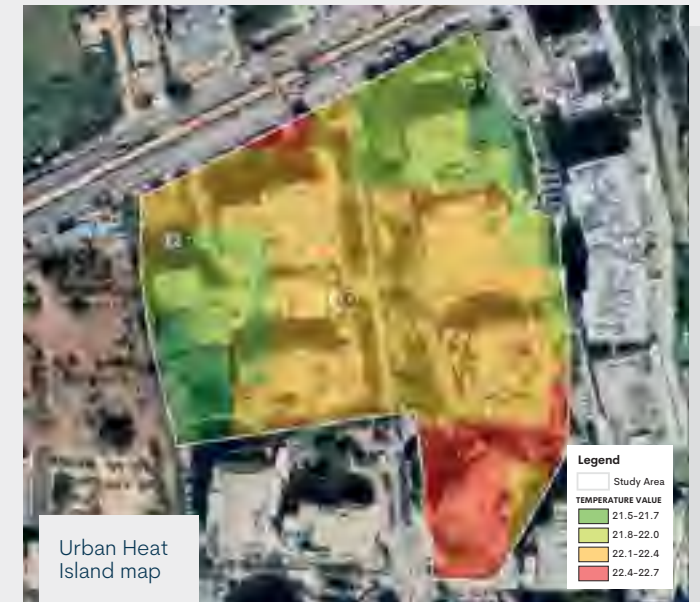
24 Shrub species



17 Herb species



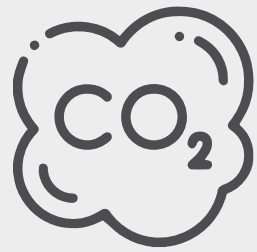
2 Climber species



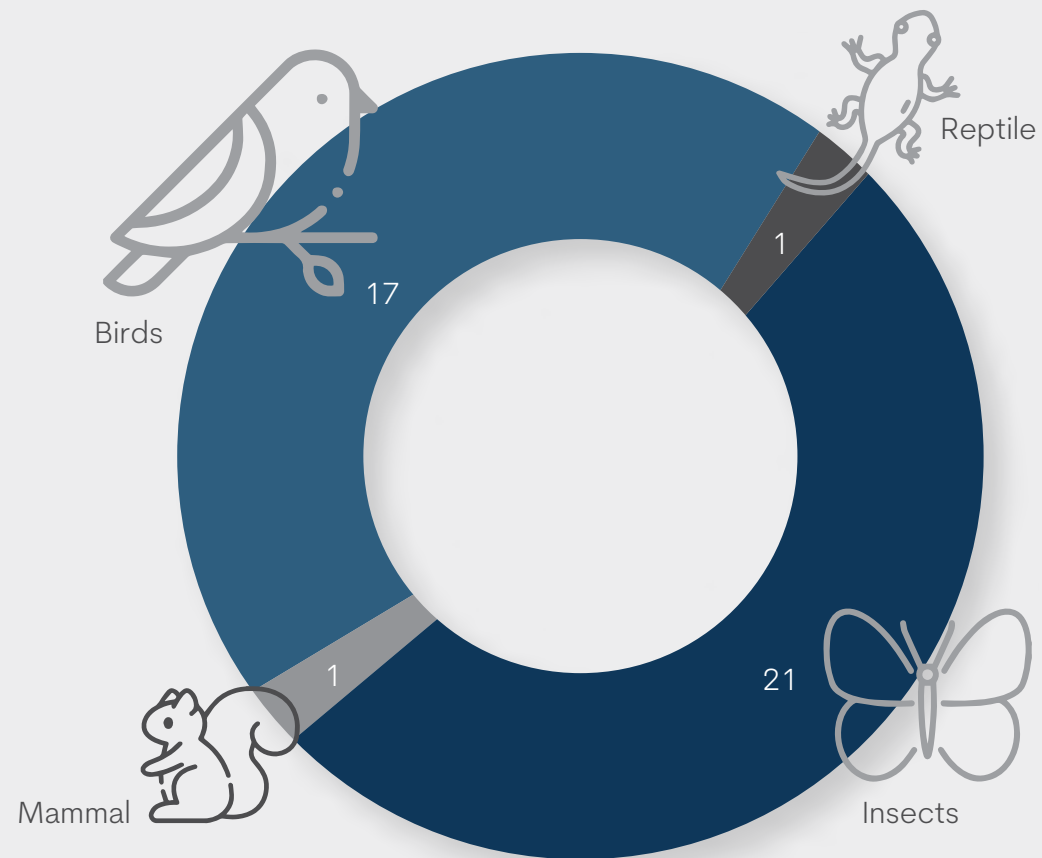
Ecoworld, Outer Ring Road, Bengaluru

Existing biodiversity profile

- Total 17.5% green cover with 30% and 100% ecological connectivity at Ecoworld (1-4), Ecoworld (5A,5B) and Ecoworld (6-8) respectively.
- Habitat comprising of 147 floral species.
- 25% floral species are native to India.
- Habitat supporting 40 faunal species.
- Simpson's Biodiversity Index (SBI) value for trees, shrubs, herbs and climbers was found to be 0.80, 0.87, 0.63 and 0.89 respectively.
- Less than 3% of invasive species were noted.
- Sita Ashok (*Saraca asoca*) categorised as Vulnerable under the IUCN Red List of Threatened Species is planted at the campus.



Total 45,335 Kg of Carbon Sequestered by 2,928 trees



- Green cover value > 40% of the land area (ground and built structures) is considered as good and 95% ecological connectivity is considered suitable for the faunal species.
- Assessment of the faunal species is based on a single-visit survey. The diversity and population count may vary.
- Simpson's Biodiversity Index value ranges between 0 to 1, a value close to 1 indicates higher diversity and evenness.
- The given Carbon Sequestration values are calculated for trees only and does not include other green patches comprising of shrubs, herbs and grass. Also, the Carbon Sequestration value is influenced by factors like the type of species, its girth and height.
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57 Tree species



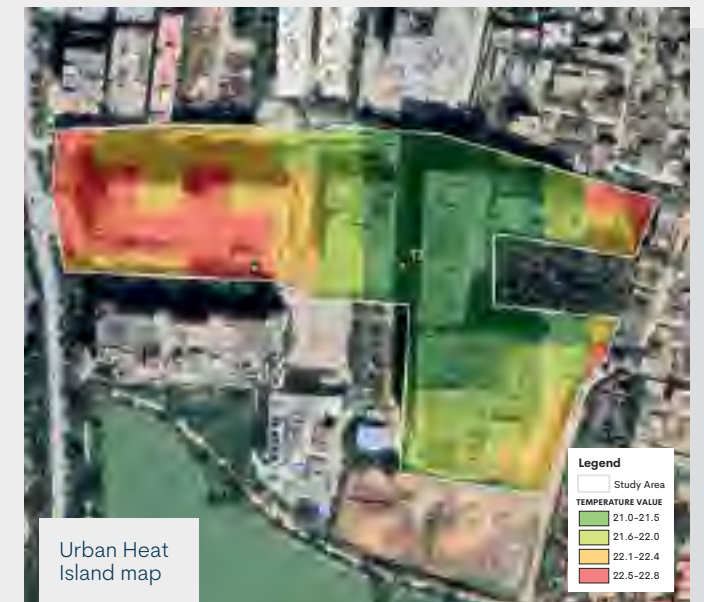
28 Shrub species



55 Herb species

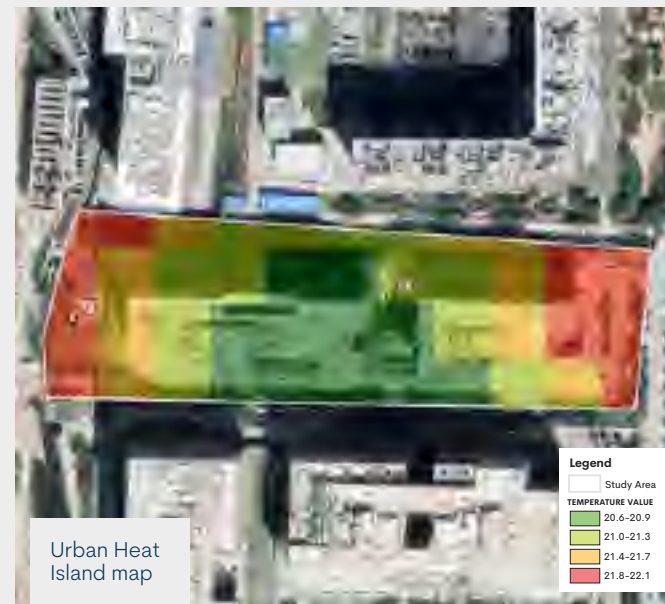


7 Climber species

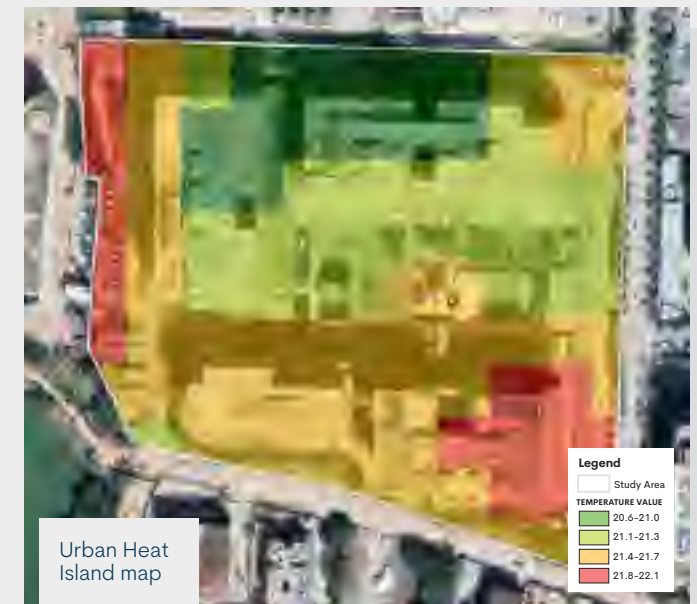




Building 5A and 5B



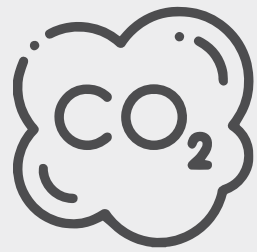
Building 6, 7 and 8



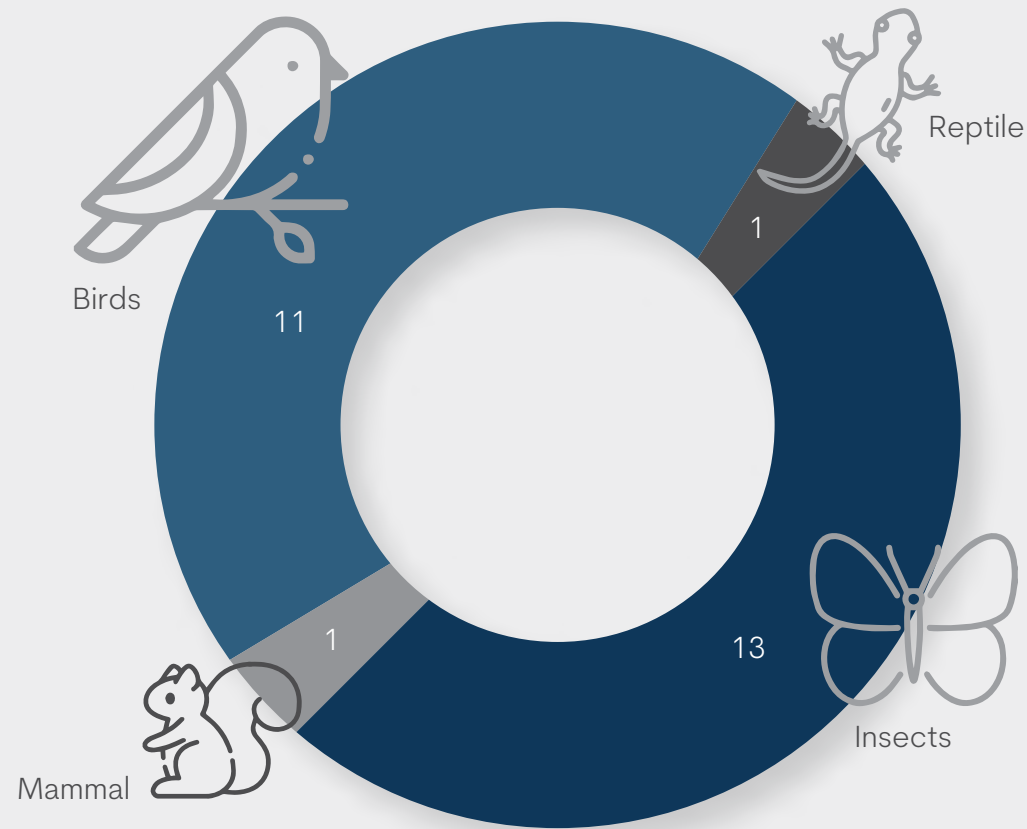
NXT, Whitefield, Bengaluru

Existing biodiversity profile

- Total 24.4% green cover with 100% ecological connectivity.
- Habitat comprising of 104 floral species.
- 23% floral species are native to India.
- Habitat supporting 26 faunal species.
- Simpson's Biodiversity Index (SBI) value for trees, shrubs, herbs and climbers was found to be 0.92, 0.90, 0.54 and 0.93 respectively.
- Less than 3% of invasive species were noted.



Total 71,031 Kg of Carbon Sequestered by 506 trees



- Green cover value > 40% of the land area (ground and built structures) is considered as good and 95% ecological connectivity is considered suitable for the faunal species.
- Assessment of the faunal species is based on a single-visit survey. The diversity and population count may vary.
- Simpson's Biodiversity Index value ranges between 0 to 1, a value close to 1 indicates higher diversity and evenness.
- The given Carbon Sequestration values are calculated for trees only and do not include other green patches comprising shrubs, herbs and grass. Also, the Carbon Sequestration value is influenced by factors like the type of species, its girth and height.
- Currently, Urban Heat Island (UHI) value has been represented on the right side, increasing the green cover percentage can help in reducing the UHI effect.
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35 Tree species



29 Shrub species



33 Herb species



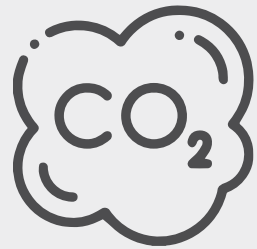
7 Climber species



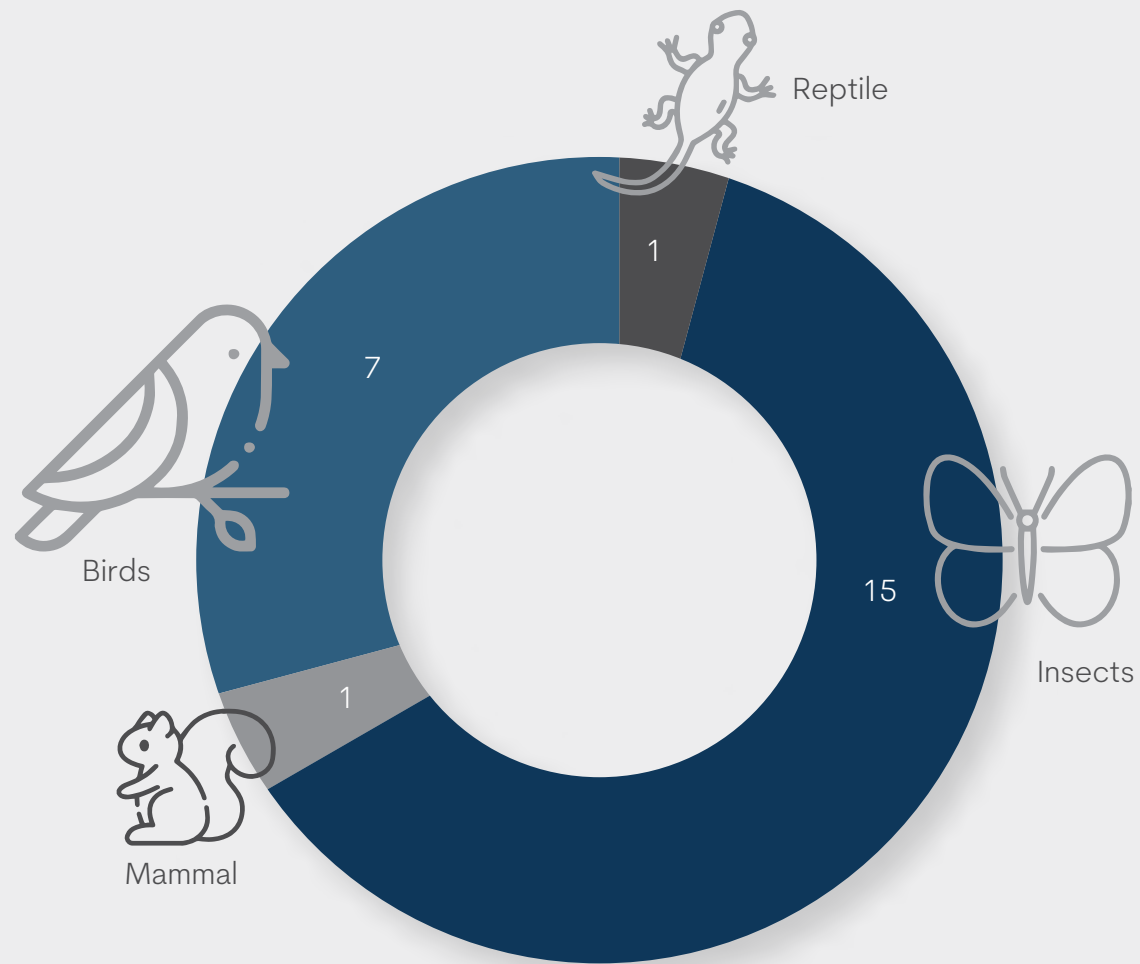
Centennial, Whitefield, Bengaluru

Existing biodiversity profile

- Total 23.3% green cover with 100% ecological connectivity.
- Habitat comprising of 80 floral species.
- 28% floral species are native to India.
- Habitat supporting 24 faunal species.
- Simpson's Biodiversity Index (SBI) value for trees, shrubs, herbs and climbers was found to be 0.6, 0.80, 0.57 and 0.74 respectively.
- Less than 3% of invasive species were noted.



Total 48,339 Kg of Carbon Sequestered by 920 trees



- Green cover value > 40% of the land area (ground and built structures) is considered as good and 95% ecological connectivity is considered suitable for the faunal species.
- Assessment of the faunal species is based on a single-visit survey. The diversity and population count may vary.
- Simpson's Biodiversity Index value ranges between 0 to 1, a value close to 1 indicates higher diversity and evenness.
- The given Carbon Sequestration values are calculated for trees only and do not include other green patches comprising shrubs, herbs and grass. Also, the Carbon Sequestration value is influenced by factors like the type of species, its girth and height.
- Currently, Urban Heat Island (UHI) value has been represented on the right-side, increasing the green cover percentage can help in reducing the UHI effect.
- The images have been processed from USGS Earth Explorer, Landsat.



28 Tree species



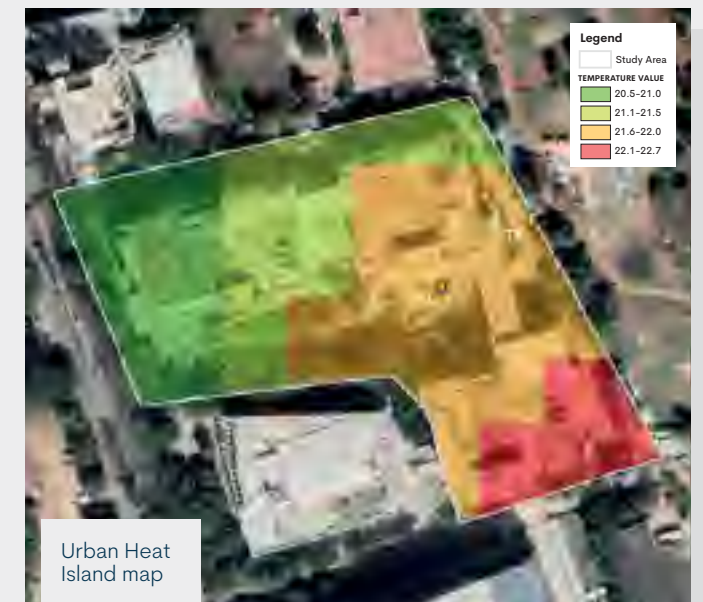
19 Shrub species



28 Herb species



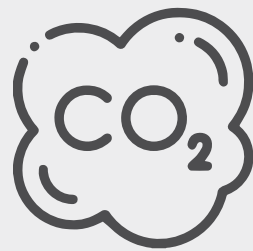
5 Climber species



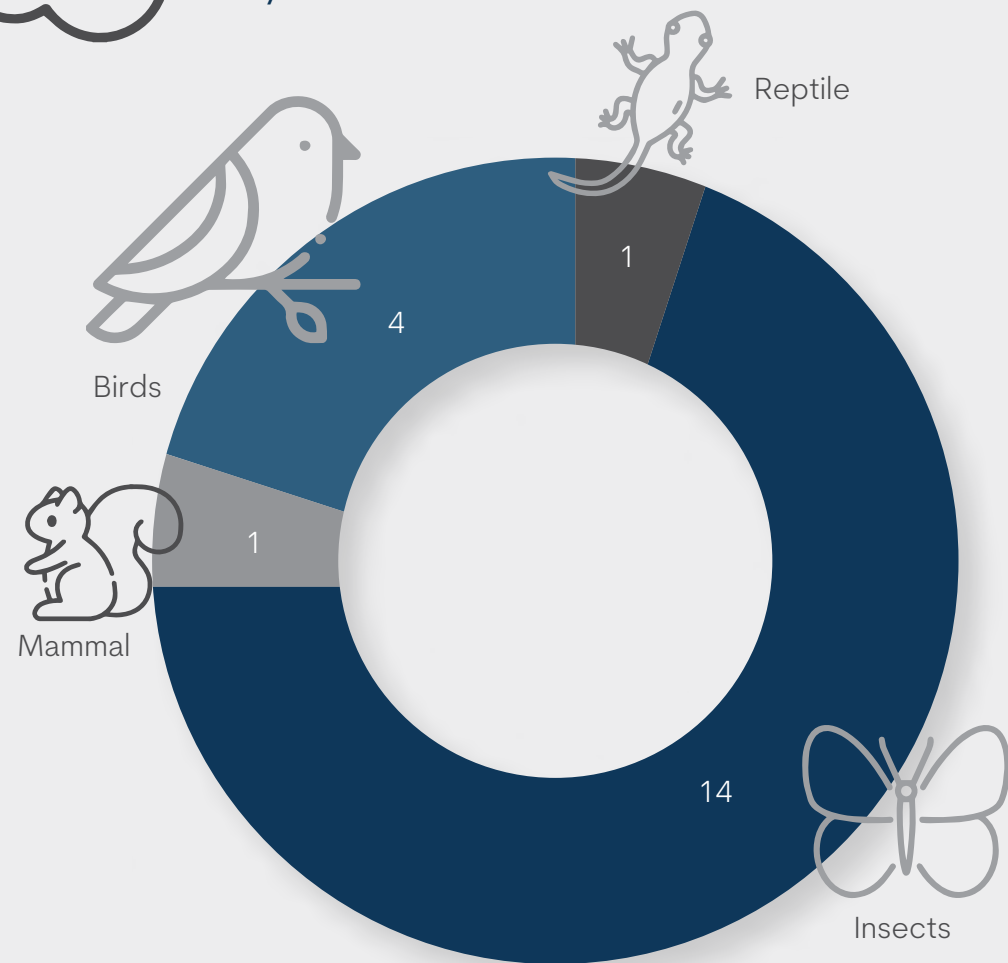
Northstar and The Galleria Mall, Bengaluru

Existing biodiversity profile

- Total 20.7% green cover with 87% ecological connectivity.
- Habitat comprising of 75 floral species.
- 28% floral species are native to India.
- Habitat supporting 20 faunal species.
- Simpson's Biodiversity Index (SBI) value for trees, shrubs herbs and climbers was found to be 0.84, 0.85, 0.75 and 0.97 respectively.
- More than 5% of invasive species were noted.
- Sita Ashoka (*Saraca asoca*) categorised as vulnerable under the IUCN Red List of Threatened Species is planted at the campus.



Total 25,748 Kg of Carbon Sequestered by 318 trees



- Green cover value > 40% of the land area (ground and built structures) is considered as good and 95% ecological connectivity is considered suitable for the faunal species.
- Assessment of the faunal species is based on a single-visit survey. The diversity and population count may vary.
- Simpson's Biodiversity Index value ranges between 0 to 1, a value close to 1 indicates higher diversity and evenness.
- The given Carbon Sequestration values are calculated for trees only and do not include other green patches comprising shrubs, herbs and grass. Also, the Carbon Sequestration value is influenced by factors like the type of species, its girth and height.
- Currently, Urban Heat Island (UHI) value has been represented on the right side, increasing the green cover percentage can help in reducing the UHI effect.
- The images have been processed from USGS Earth Explorer, Landsat.



37 Tree species



16 Shrub species



17 Herb species



5 Climber species



Green cover



Ecological connectivity

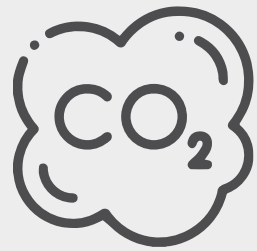


Urban Heat Island map

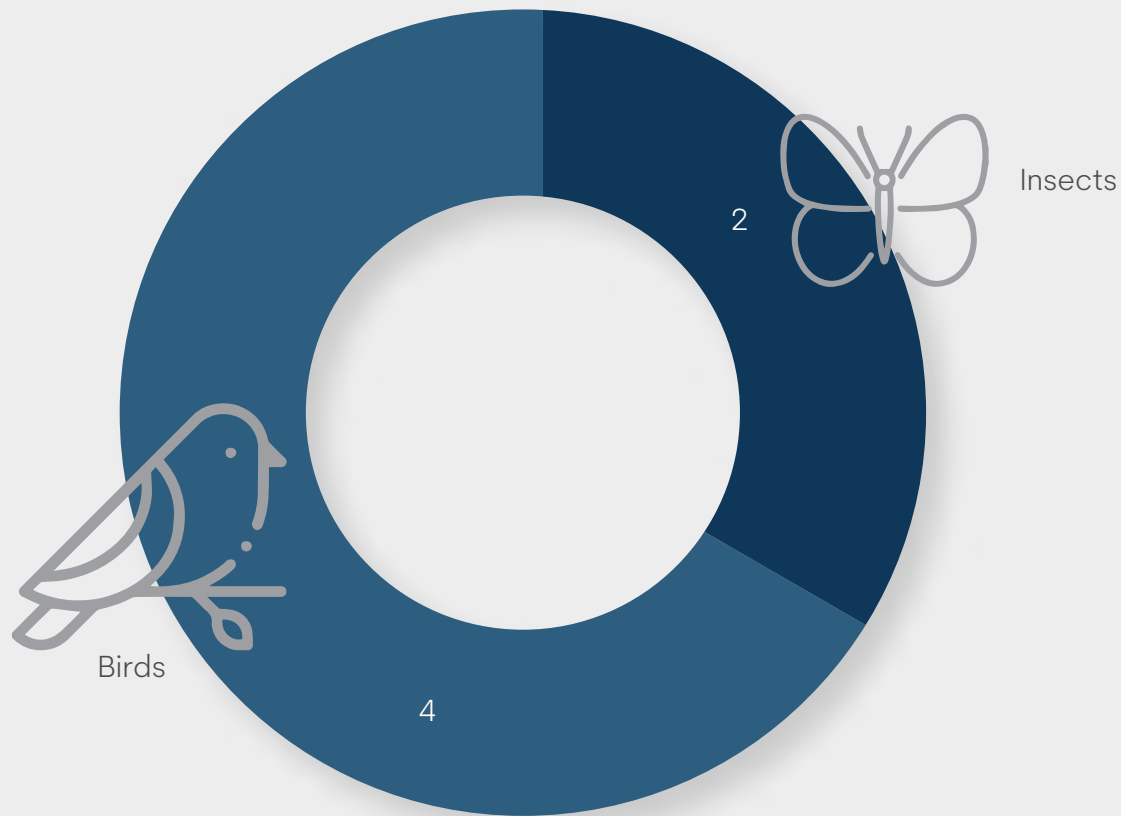
Azure, Hebbal, Bengaluru

Existing biodiversity profile

- Total 7.30% green cover with 52% ecological connectivity.
- Habitat comprising of 44 floral species.
- 23% floral species are native to India.
- Habitat supporting 6 faunal species.
- Simpson's Biodiversity Index (SBI) value for trees, shrubs, herbs and climbers was found to be 0.71, 0.75, 0.00 and 0.86 respectively.
- Less than 1% of invasive species were noted.



Total 398 Kg of Carbon Sequestered by 108 trees



- Green cover value > 40% of the land area (ground and built structures) is considered as good and 95% ecological connectivity is considered suitable for the faunal species.
- Assessment of the faunal species is based on a single-visit survey. The diversity and population count may vary.
- Simpson's Biodiversity Index value ranges between 0 to 1, a value close to 1 indicates higher diversity and evenness.
- The given Carbon Sequestration values are calculated for trees only and do not include other green patches comprising of shrubs, herbs and grass. Also, the Carbon Sequestration value is influenced by factors like the type of species, its girth and height.
- Currently, Urban Heat Island (UHI) value has been represented on the right side, increasing the green cover percentage can help in reducing the UHI effect.
- The images have been processed from USGS Earth Explorer, Landsat.



11 Tree species



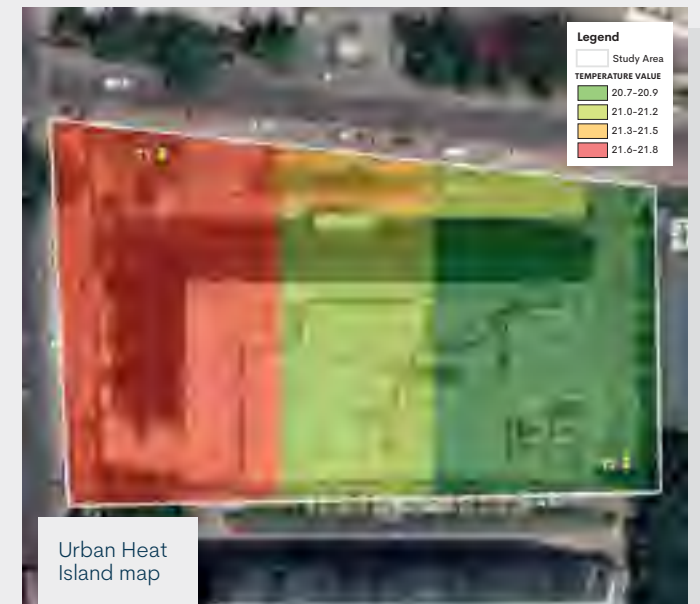
14 Shrub species



18 Herb species



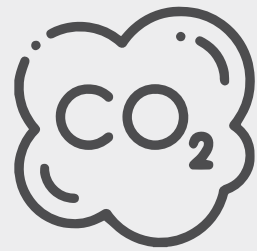
1 Climber species



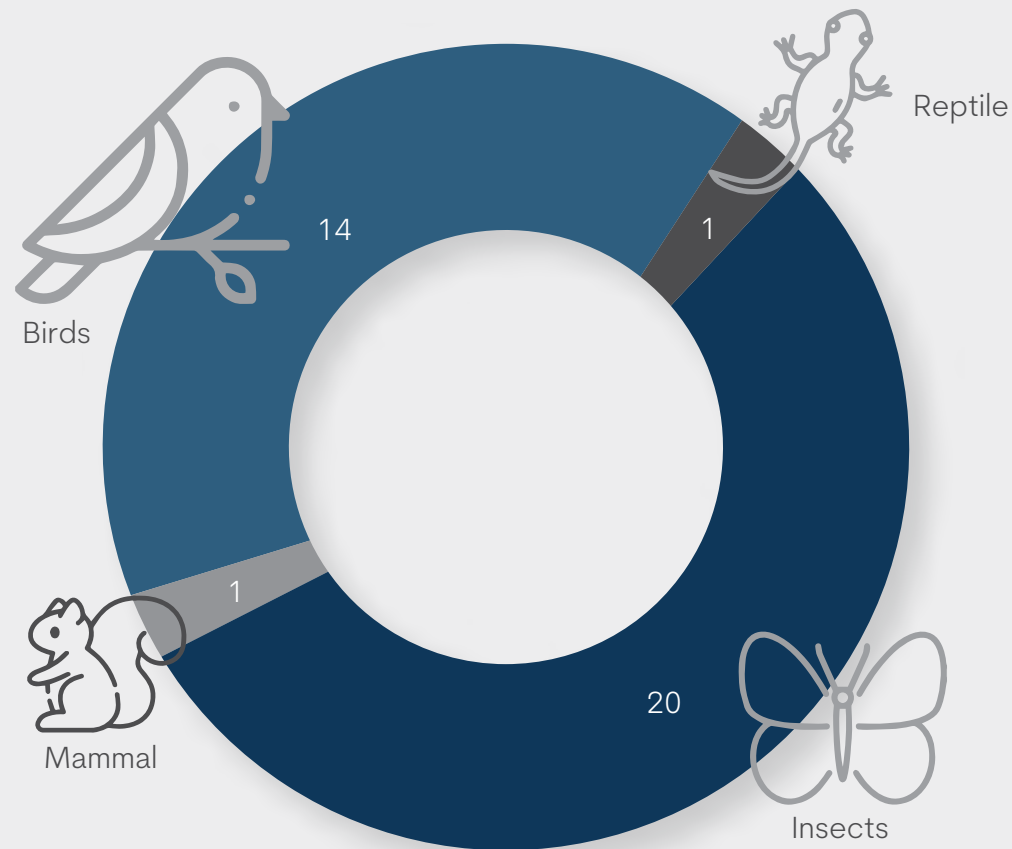
Millenia Business Park, Perungudi, Chennai

Existing biodiversity profile

- Total 23.40% green cover with 94% ecological connectivity.
- Habitat comprising of 95 floral species.
- 35% floral species are native to India.
- Habitat supporting 36 faunal species.
- Simpson's Biodiversity Index (SBI) value for trees, shrubs, herbs and climbers was found to be 0.57, 0.58, 0.41 and 0.58 respectively.
- More than 10% of invasive species were noted.
- Indian Sandalwood (*Santalum album*) categorised as vulnerable under the IUCN Red List of Threatened Species is planted at the campus.



Total 90,704 Kg of Carbon Sequestered by 1,803 trees



- Green cover value > 40% of the land area (ground and built structures) is considered as good and 95% ecological connectivity is considered suitable for the faunal species.
- Assessment of the faunal species is based on a single-visit survey. The diversity and population count may vary.
- Simpson's Biodiversity Index value ranges between 0 to 1, a value close to 1 indicates higher diversity and evenness.
- The given Carbon Sequestration values are calculated for trees only and do not include other green patches comprising shrubs, herbs and grass. Also, the Carbon Sequestration value is influenced by factors like the type of species, its girth and height.
- Currently, Urban Heat Island (UHI) value has been represented on the right side, increasing the green cover percentage can help in reducing the UHI effect.
- The images have been processed from USGS Earth Explorer, Landsat.



36 Tree species



21 Shrub species



31 Herb species



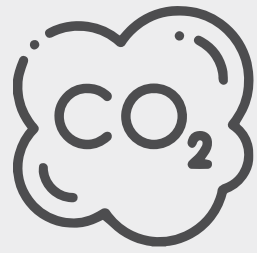
7 Climber species



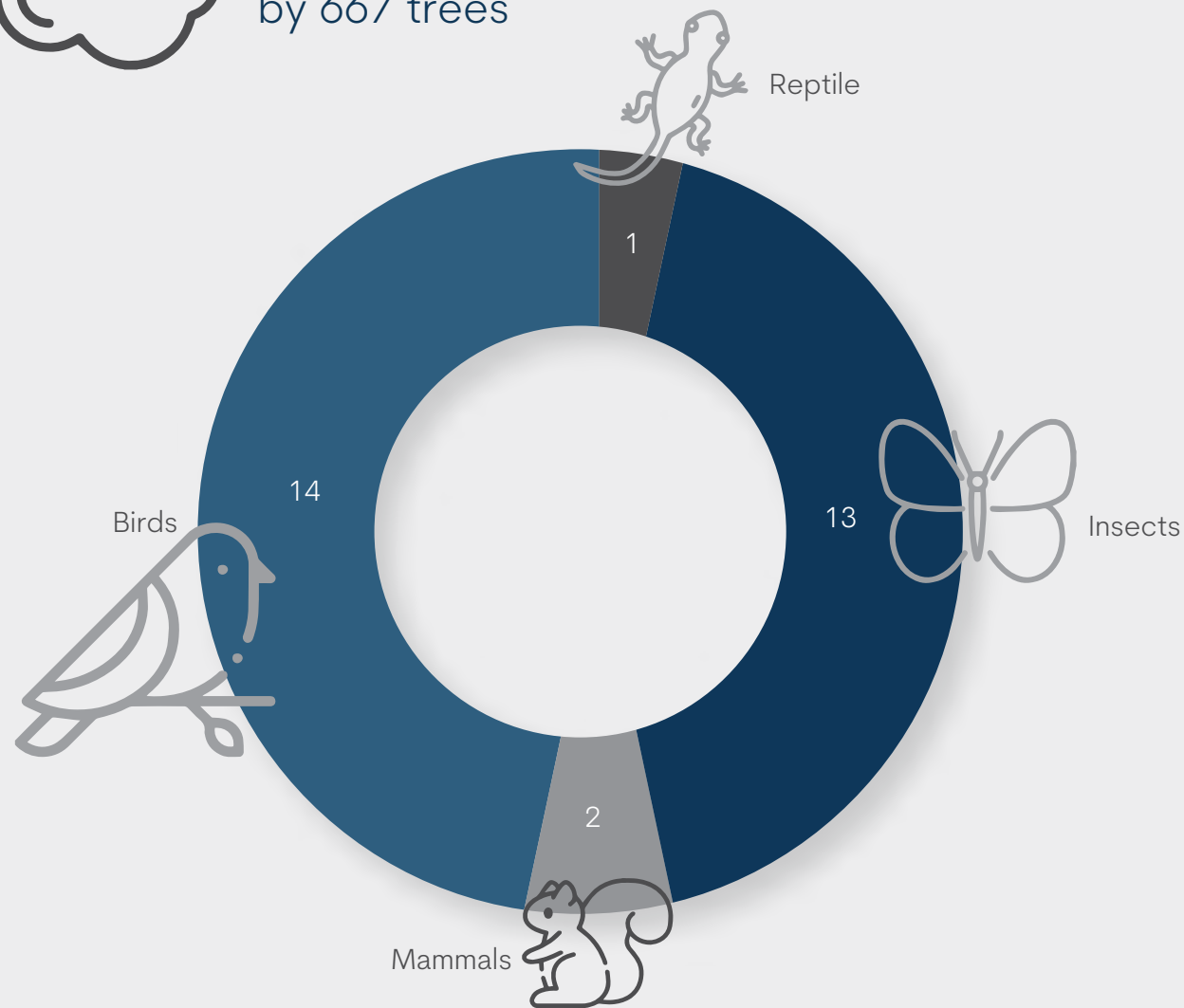
Delphi, Downtown Powai, Mumbai

Existing biodiversity profile

- Total 61% green cover with 100% ecological connectivity.
- Habitat comprising of 54 floral species.
- 46% floral species are native to India.
- Habitat supporting 30 faunal species.
- Simpson's Biodiversity Index (SBI) value for trees, shrubs, herbs and climbers was found to be 0.72, 0.47, 0.76 and 0.63 respectively.
- No invasive species were noted.



Total 25,224 Kg of Carbon Sequestered by 667 trees



- Green cover value > 40% of the land area (ground and built structures) is considered as good and 95% ecological connectivity is considered suitable for the faunal species.
- Assessment of the faunal species is based on a single-visit survey. The diversity and population count may vary.
- Simpson's Biodiversity Index value ranges between 0 to 1, a value close to 1 indicates higher diversity and evenness.
- The given Carbon Sequestration values are calculated for trees only and do not include other green patches comprising of shrubs, herbs and grass. Also, the Carbon Sequestration value is influenced by factors like the type of species, its girth and height.
- Currently, Urban Heat Island (UHI) value has been represented on the right side, increasing the green cover percentage can help in reducing the UHI effect.
- The images have been processed from USGS Earth Explorer, Landsat.



33 Tree species



7 Shrub species



9 Herb species



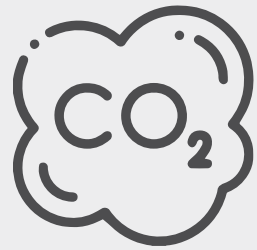
5 Climber species



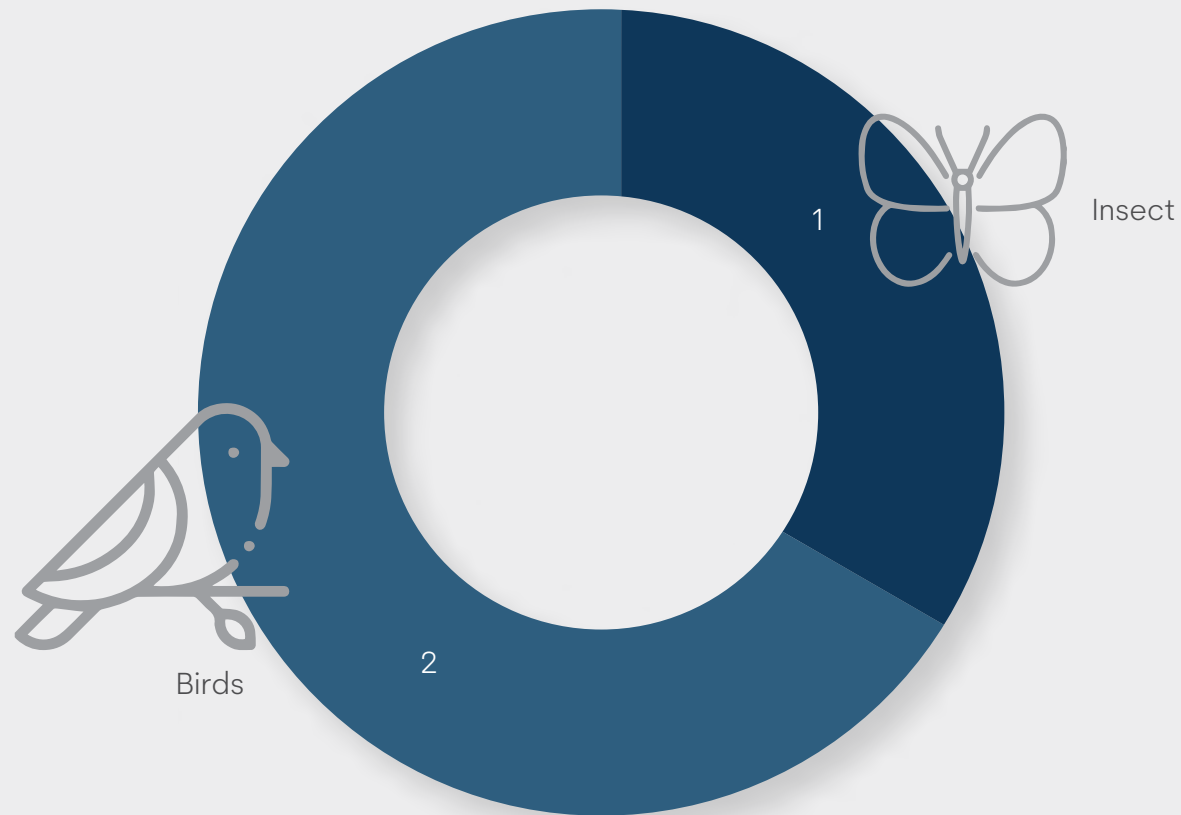
One Boulevard, Downtown Powai, Mumbai

Existing biodiversity profile

- Total 24% green cover with 100% ecological connectivity.
- Habitat comprising of 6 floral species.
- 16% floral species are native to India.
- Habitat supporting 3 faunal species.
- Simpson's Biodiversity Index (SBI) value for trees, herbs and climbers was found to be 0.44, 0.47 and 0.00 respectively.
- No invasive species were noted.



Total 18,870 Kg of Carbon Sequestered by 31 trees



- Green cover value > 40% of the land area (ground and built structures) is considered as good and 95% ecological connectivity is considered suitable for the faunal species.
- Assessment of the faunal species is based on a single-visit survey. The diversity and population count may vary.
- Simpson's Biodiversity Index value ranges between 0 to 1, a value close to 1 indicates higher diversity and evenness.
- The given Carbon Sequestration values are calculated for trees only and do not include other green patches comprising of shrubs, herbs and grass. Also, the Carbon Sequestration value is influenced by factors like the type of species, its girth and height.
- Currently, Urban Heat Island (UHI) value has been represented on the right side, increasing the green cover percentage can help in reducing the UHI effect.
- The images have been processed from USGS Earth Explorer, Landsat.



3 Tree species



0 Shrub species



2 Herb species



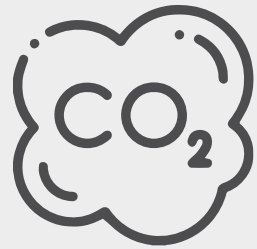
1 Climber species



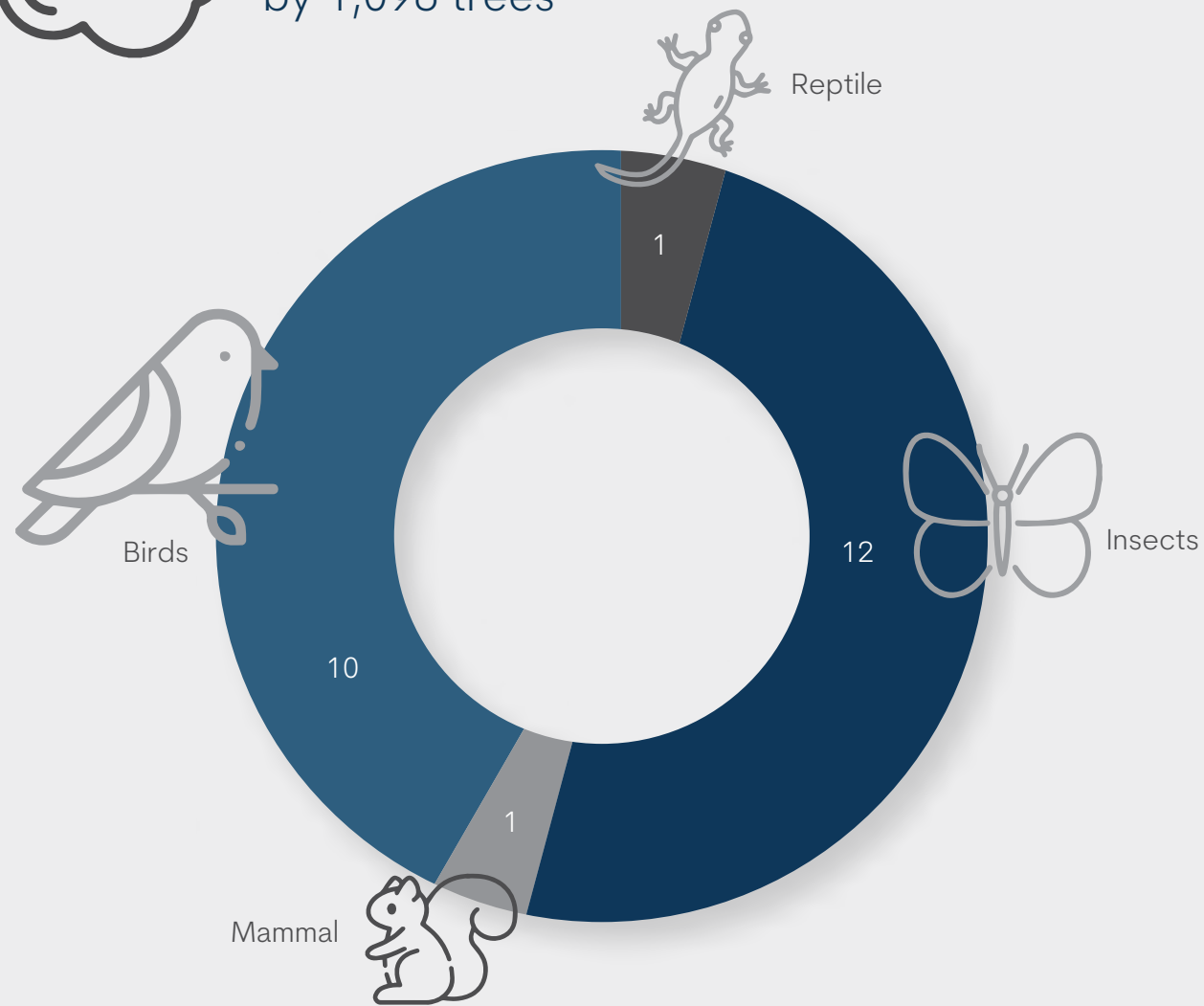
Ventura, Downtown Powai, Mumbai

Existing biodiversity profile

- Total 16% green cover with 52% ecological connectivity.
- Habitat comprising of 39 floral species.
- 49% floral species are native to India.
- Habitat supporting 24 faunal species.
- Simpson's Biodiversity Index (SBI) value for trees, shrubs, herbs and climbers was found to be 0.54, 0.47, 0.69 and 0.25 respectively.
- Less than 2% of invasive species were noted.



Total 23,198 Kg of Carbon Sequestered by 1,095 trees



- Green cover value > 40% of the land area (ground and built structures) is considered as good and 95% ecological connectivity is considered suitable for the faunal species.
- Assessment of the faunal species is based on a single-visit survey. The diversity and population count may vary.
- Simpson's Biodiversity Index value ranges between 0 to 1, a value close to 1 indicates higher diversity and evenness.
- The given Carbon Sequestration values are calculated for trees only and do not include other green patches comprising shrubs, herbs and grass. Also, the Carbon Sequestration value is influenced by factors like the type of species, its girth and height.
- Currently, Urban Heat Island (UHI) value has been represented on the right side, increasing the green cover percentage can help in reducing the UHI effect.
- The images have been processed from USGS Earth Explorer, Landsat.



24 Tree species



4 Shrub species



9 Herb species



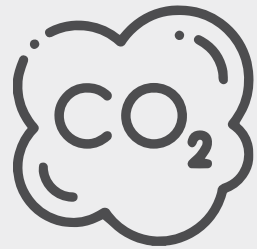
2 Climber species



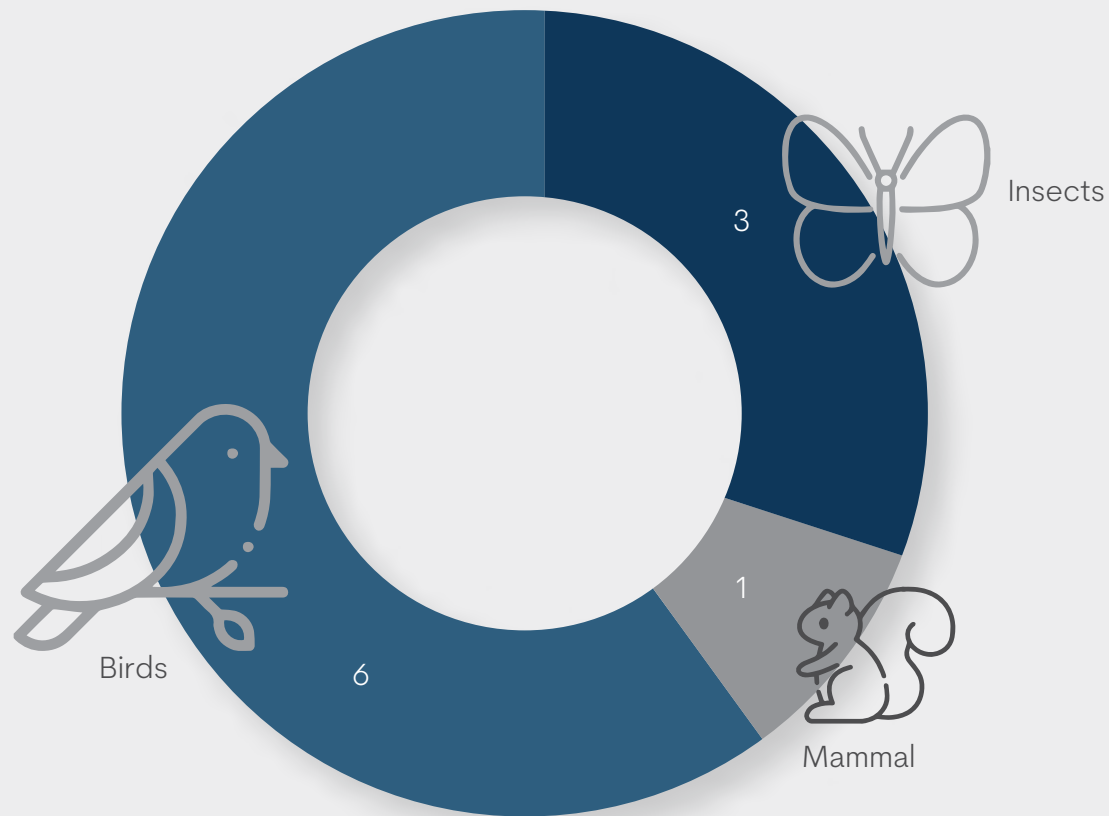
Citi Park, Downtown Powai, Mumbai

Existing biodiversity profile

- Total 19% green cover with 100% ecological connectivity.
- Habitat comprising of 27 floral species.
- 59% floral species are native to India.
- Habitat supporting 10 faunal species.
- Simpson's Biodiversity Index (SBI) value for trees, shrubs, herbs and climbers was found to be 0.83, 0.00, 0.06 and 0.00 respectively.
- Less than 1% of invasive species were noted.



Total 9,340 Kg of Carbon Sequestered by 130 trees



- Green cover value > 40% of the land area (ground and built structures) is considered as good and 95% ecological connectivity is considered suitable for the faunal species.
- Assessment of the faunal species is based on a single-visit survey. The diversity and population count may vary.
- Simpson's Biodiversity Index value ranges between 0 to 1, a value close to 1 indicates higher diversity and evenness.
- The given Carbon Sequestration values are calculated for trees only and do not include other green patches comprising shrubs, herbs and grass. Also, the Carbon Sequestration value is influenced by factors like the type of species, its girth and height.
- Currently, Urban Heat Island (UHI) value has been represented on the right side, increasing the green cover percentage can help in reducing the UHI effect.
- The images have been processed from USGS Earth Explorer, Landsat.



Green cover



20 Tree species



1 Shrub species



5 Herb species



1 Climber species



Ecological connectivity

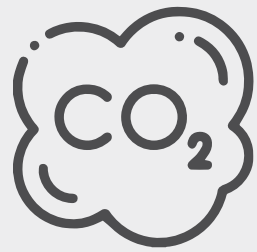


Urban Heat Island map

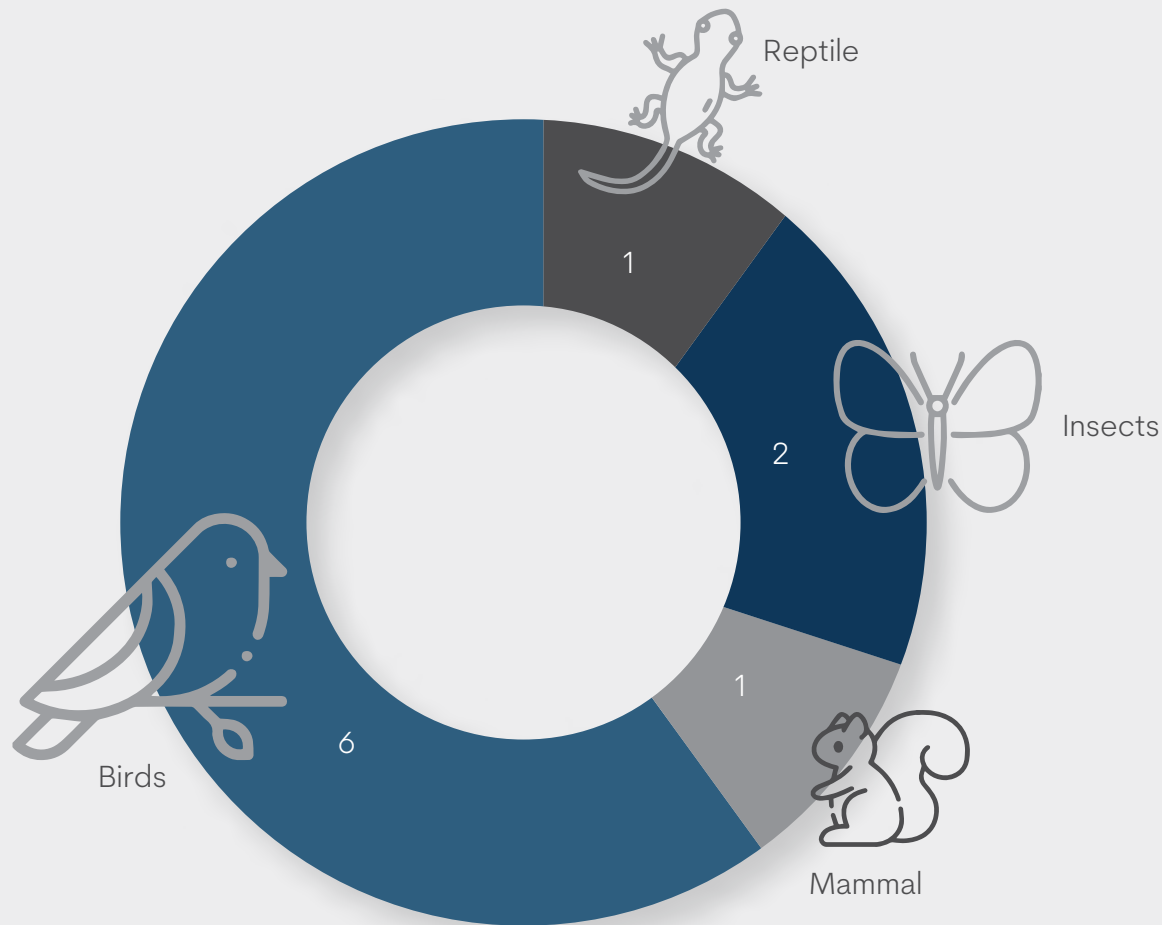
Prudential, Downtown Powai, Mumbai

Existing biodiversity profile

- Total 5% green cover with 100% ecological connectivity.
- Habitat comprising of 23 floral species.
- 35% floral species are native to India.
- Habitat supporting 10 faunal species.
- Simpson's Biodiversity Index (SBI) value for trees, shrubs, herbs and climbers was found to be 0.91, 0.00, 0.41 and 0.28 respectively.
- Less than 1% of invasive species were noted.



Total 20,169 Kg of Carbon Sequestered by 50 trees



- Green cover value > 40% of the land area (ground and built structures) is considered as good and 95% ecological connectivity is considered suitable for the faunal species.
- Assessment of the faunal species is based on a single-visit survey. The diversity and population count may vary.
- Simpson's Biodiversity Index value ranges between 0 to 1, a value close to 1 indicates higher diversity and evenness.
- The given Carbon Sequestration values are calculated for trees only and do not include other green patches comprising shrubs, herbs and grass. Also, the Carbon Sequestration value is influenced by factors like the type of species, its girth and height.
- Currently, Urban Heat Island (UHI) value has been represented on the right side, increasing the green cover percentage can help in reducing the UHI effect.
- The images have been processed from USGS Earth Explorer, Landsat.



Green cover



13 Tree species



1 Shrub species



7 Herb species



2 Climber species



Ecological connectivity

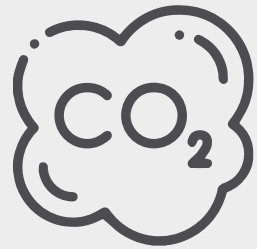


Urban Heat Island map

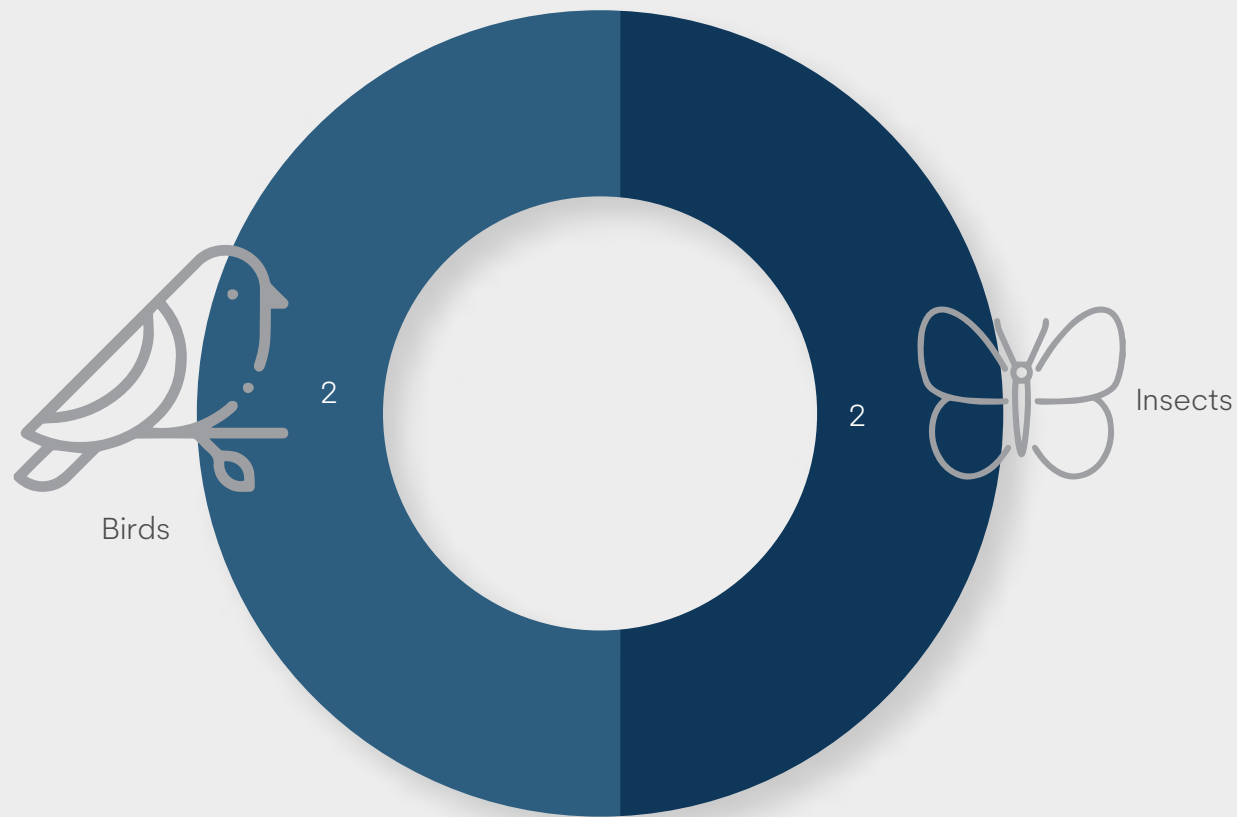
Alpha, Downtown Powai, Mumbai

Existing biodiversity profile

- Total 7% green cover with 60% ecological connectivity.
- Habitat comprising of 9 floral species.
- 33% floral species are native to India.
- Habitat supporting 4 faunal species.
- Simpson's Biodiversity Index (SBI) value for trees, shrubs, herbs and climbers was found to be 0.82, 0.27, 0.00 and 0.00 respectively.
- No invasive species were noted.



Total 607 Kg of Carbon Sequestered by 11 trees



- Green cover value > 40% of the land area (ground and built structures) is considered as good and 95% ecological connectivity is considered suitable for the faunal species.
- Assessment of the faunal species is based on a single-visit survey. The diversity and population count may vary.
- Simpson's Biodiversity Index value ranges between 0 to 1, a value close to 1 indicates higher diversity and evenness.
- The given Carbon Sequestration values are calculated for trees only and do not include other green patches comprising shrubs, herbs and grass. Also, the Carbon Sequestration value is influenced by factors like the type of species, its girth and height.
- Currently, Urban Heat Island (UHI) value has been represented on the right side, increasing the green cover percentage can help in reducing the UHI effect.
- The images have been processed from USGS Earth Explorer, Landsat.



5 Tree species



2 Shrub species



1 Herb species



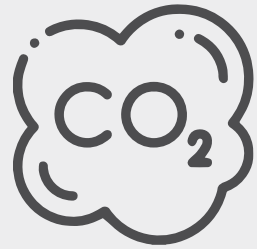
1 Climber species



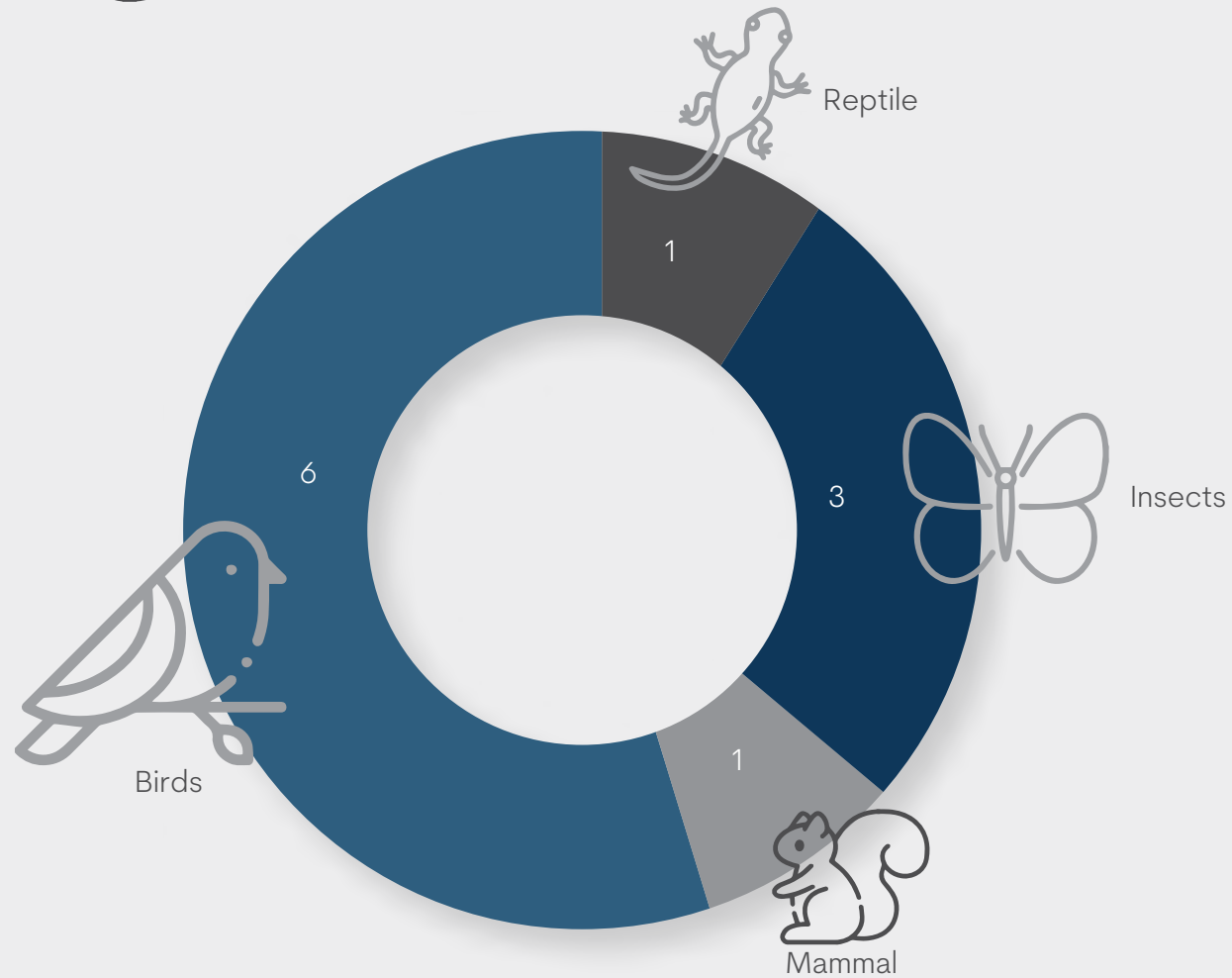
Spectra, Downtown Powai, Mumbai

Existing biodiversity profile

- Total 9.3% green cover with 51% ecological connectivity.
- Habitat comprising of 23 floral species.
- 48% floral species are native to India.
- Habitat supporting 11 faunal species.
- Simpson's Biodiversity Index (SBI) value for trees, shrubs, herbs and climbers was found to be 0.68, 0.54, 0.37 and 0.53 respectively.
- No invasive species were noted.



Total 2,619 Kg of Carbon Sequestered by 128 trees



- Green cover value > 40% of the land area (ground and built structures) is considered as good and 95% ecological connectivity is considered suitable for the faunal species.
- Assessment of the faunal species is based on a single-visit survey. The diversity and population count may vary.
- Simpson's Biodiversity Index value ranges between 0 to 1, a value close to 1 indicates higher diversity and evenness.
- The given Carbon Sequestration values are calculated for trees only and do not include other green patches comprising shrubs, herbs and grass. Also, the Carbon Sequestration value is influenced by factors like the type of species, its girth and height.
- Currently, Urban Heat Island (UHI) value has been represented on the right side, increasing the green cover percentage can help in reducing the UHI effect.
- The images have been processed from USGS Earth Explorer, Landsat.



13 Tree species



3 Shrub species



4 Herb species



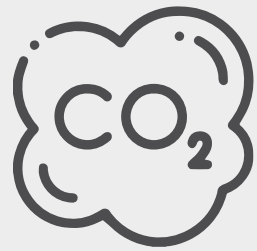
3 Climber species



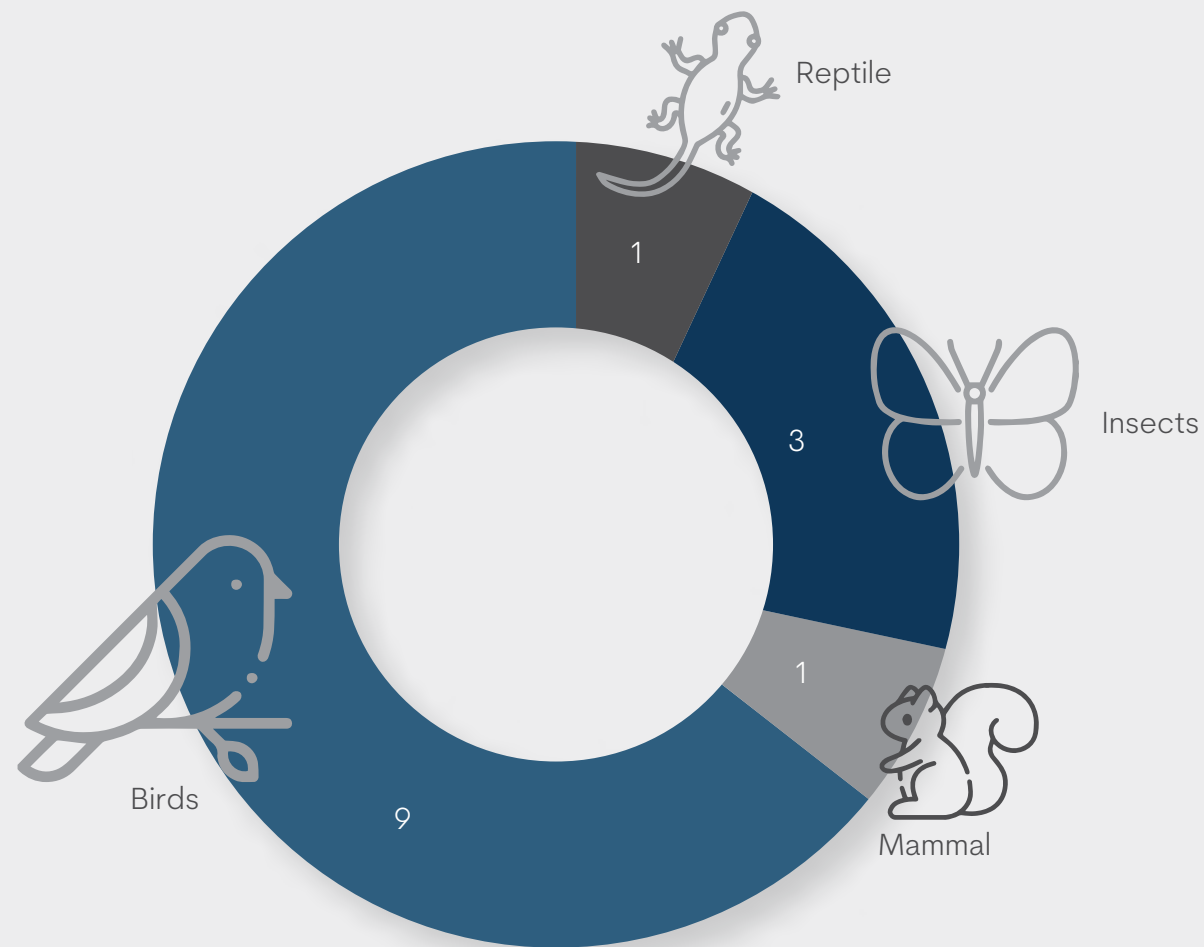
CRISIL House, Downtown Powai, Mumbai

Existing biodiversity profile

- Total 12% green cover with 43% ecological connectivity.
- Habitat comprising of 26 floral species.
- 56% floral species are native to India.
- Habitat supporting 14 faunal species.
- Simpson's Biodiversity Index (SBI) value for trees, shrubs, herbs and climbers was found to be 0.22, 0.68, 0.67 and 0.45 respectively.
- More than 40% of invasive species were noted.



Total 1,390 Kg of Carbon Sequestered by 160 trees



- Green cover value > 40% of the land area (ground and built structures) is considered as good and 95% ecological connectivity is considered suitable for the faunal species.
- Assessment of the faunal species is based on a single-visit survey. The diversity and population count may vary.
- Simpson's Biodiversity Index value ranges between 0 to 1, a value close to 1 indicates higher diversity and evenness.
- The given Carbon Sequestration values are calculated for trees only and do not include other green patches comprising shrubs, herbs and grass. Also, the Carbon Sequestration value is influenced by factors like the type of species, its girth and height.
- Currently, Urban Heat Island (UHI) value has been represented on the right side, increasing the green cover percentage can help in reducing the UHI effect.
- The images have been processed from USGS Earth Explorer, Landsat.



7 Tree species



8 Shrub species



9 Herb species



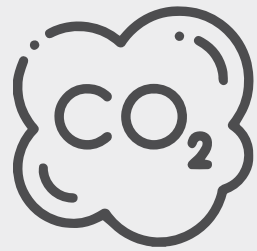
2 Climber species



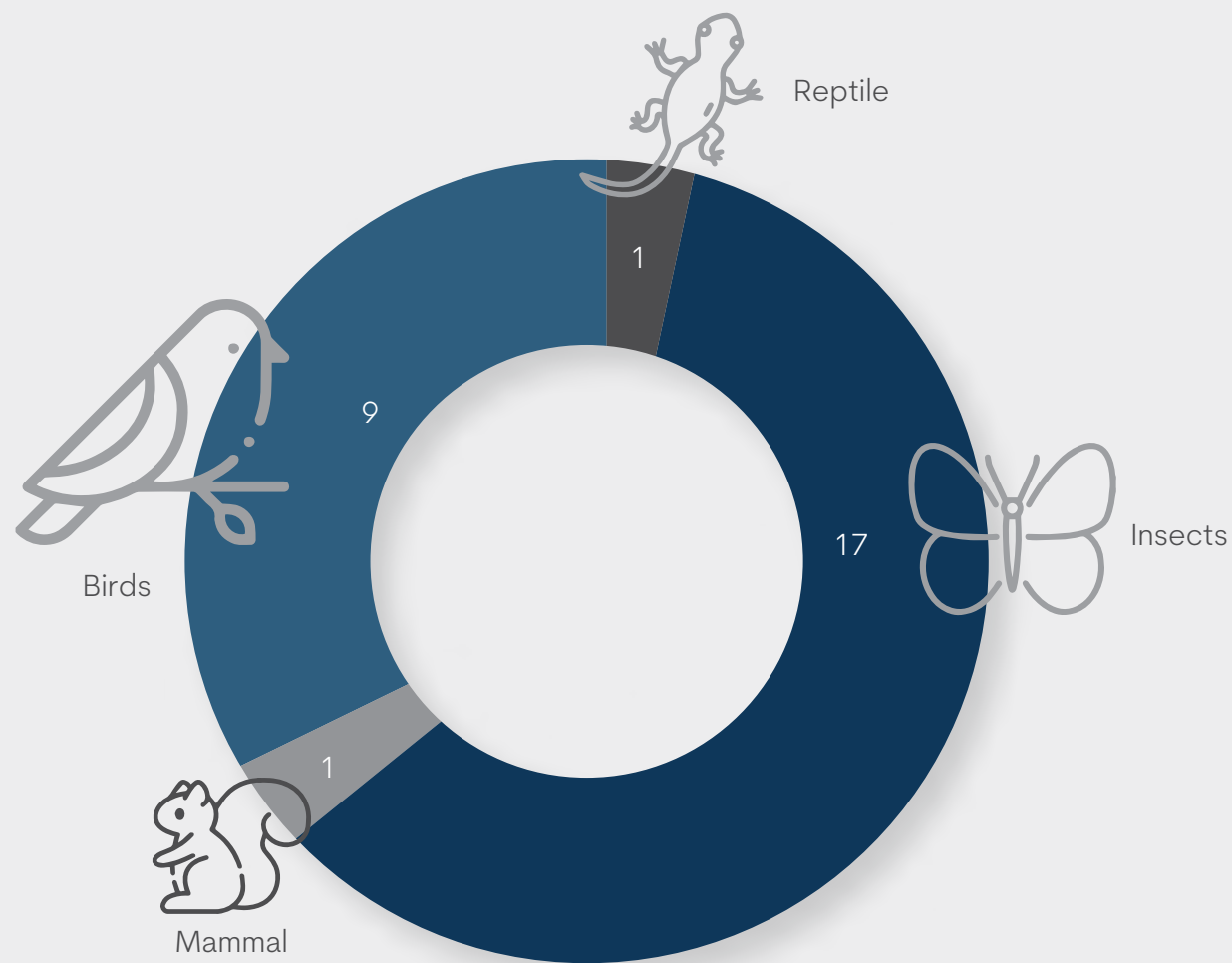
Fairmont, Downtown Powai, Mumbai

Existing biodiversity profile

- Total 12% green cover with 64% ecological connectivity.
- Habitat comprising of 42 floral species.
- 40% floral species are native to India.
- Habitat supporting 28 faunal species.
- Simpson's Biodiversity Index (SBI) value for trees, shrubs, herbs and climbers was found to be 0.59, 0.75, 0.74 and 0.48 respectively.
- More than 90% of invasive species were noted.



Total 22,273 Kg of Carbon Sequestered by 584 trees



- Green cover value > 40% of the land area (ground and built structures) is considered as good and 95% ecological connectivity is considered suitable for the faunal species.
- Assessment of the faunal species is based on a single-visit survey. The diversity and population count may vary.
- Simpson's Biodiversity Index value ranges between 0 to 1, a value close to 1 indicates higher diversity and evenness.
- The given Carbon Sequestration values are calculated for trees only and do not include other green patches comprising shrubs, herbs and grass. Also, the Carbon Sequestration value is influenced by factors like the type of species, its girth and height.
- Currently, Urban Heat Island (UHI) value has been represented on the right side, increasing the green cover percentage can help in reducing the UHI effect.
- The images have been processed from USGS Earth Explorer, Landsat.



21 Tree species



8 Shrub species



11 Herb species



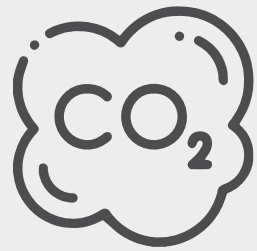
2 Climber species



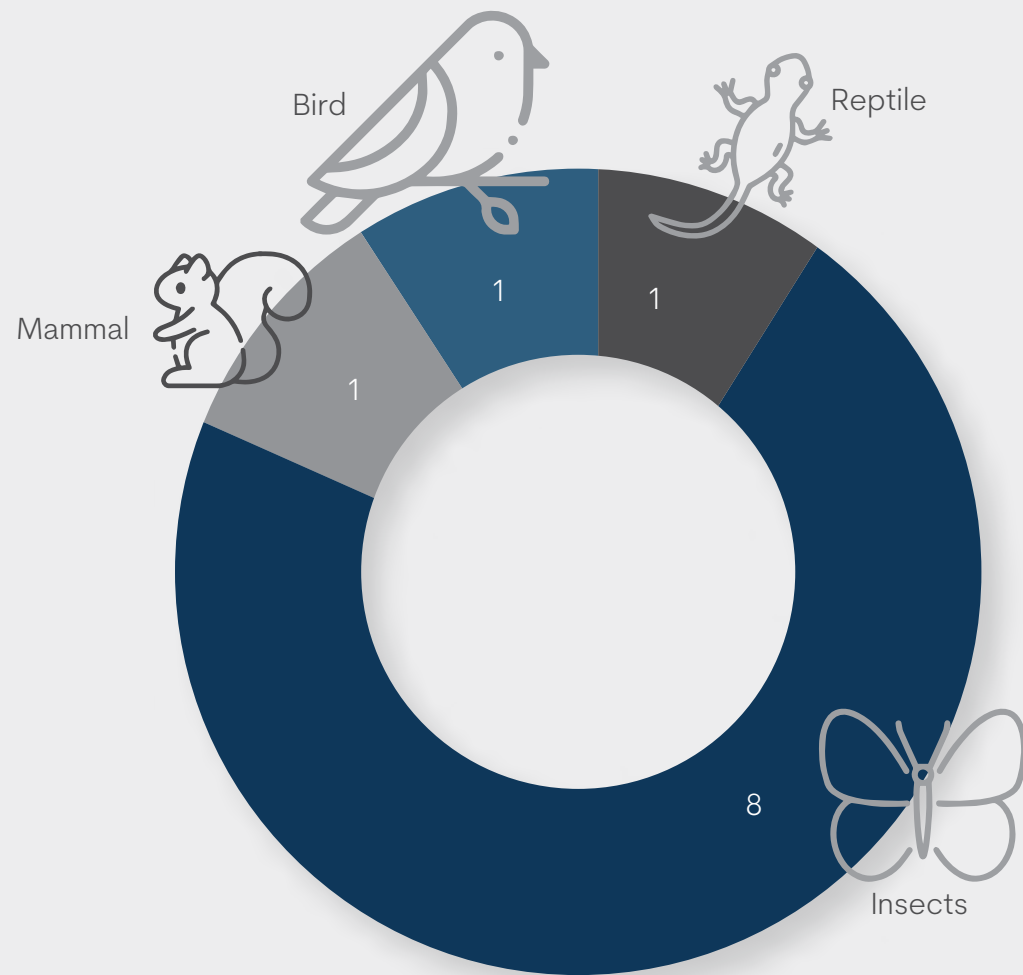
Winchester, Downtown Powai, Mumbai

Existing biodiversity profile

- Total 6% green cover with 83% ecological connectivity.
- Habitat comprising of 25 floral species.
- 40% floral species are native to India.
- Habitat supporting 11 faunal species.
- Simpson's Biodiversity Index (SBI) value for trees, shrubs, herbs and climbers was found to be 0.71, 0.65, 0.71 and 0.00 respectively.
- More than 25% of invasive species were noted.



Total 1,780 Kg of Carbon Sequestered by 188 trees



- Green cover value > 40% of the land area (ground and built structures) is considered as good and 95% ecological connectivity is considered suitable for the faunal species.
- Assessment of the faunal species is based on a single-visit survey. The diversity and population count may vary.
- Simpson's Biodiversity Index value ranges between 0 to 1, a value close to 1 indicates higher diversity and evenness.
- The given Carbon Sequestration values are calculated for trees only and do not include other green patches comprising shrubs, herbs and grass. Also, the Carbon Sequestration value is influenced by factors like the type of species, its girth and height.
- Currently, Urban Heat Island (UHI) value has been represented on the right side, increasing the green cover percentage can help in reducing the UHI effect.
- The images have been processed from USGS Earth Explorer, Landsat.



13 Tree species



4 Shrub species



7 Herb species



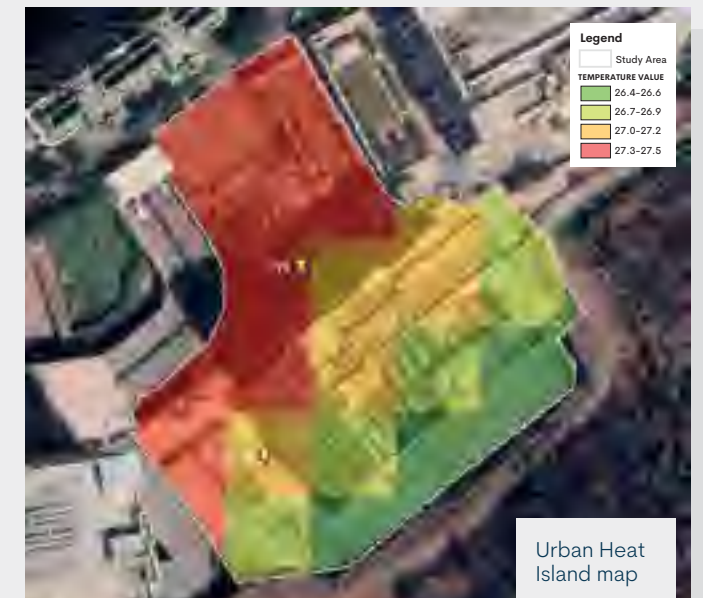
1 Climber species



Green cover



Ecological connectivity



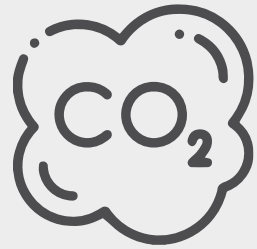
Legend
Study Area
TEMPERATURE VALUE
26.4-26.6
26.7-26.9
27.0-27.2
27.3-27.5

Urban Heat Island map

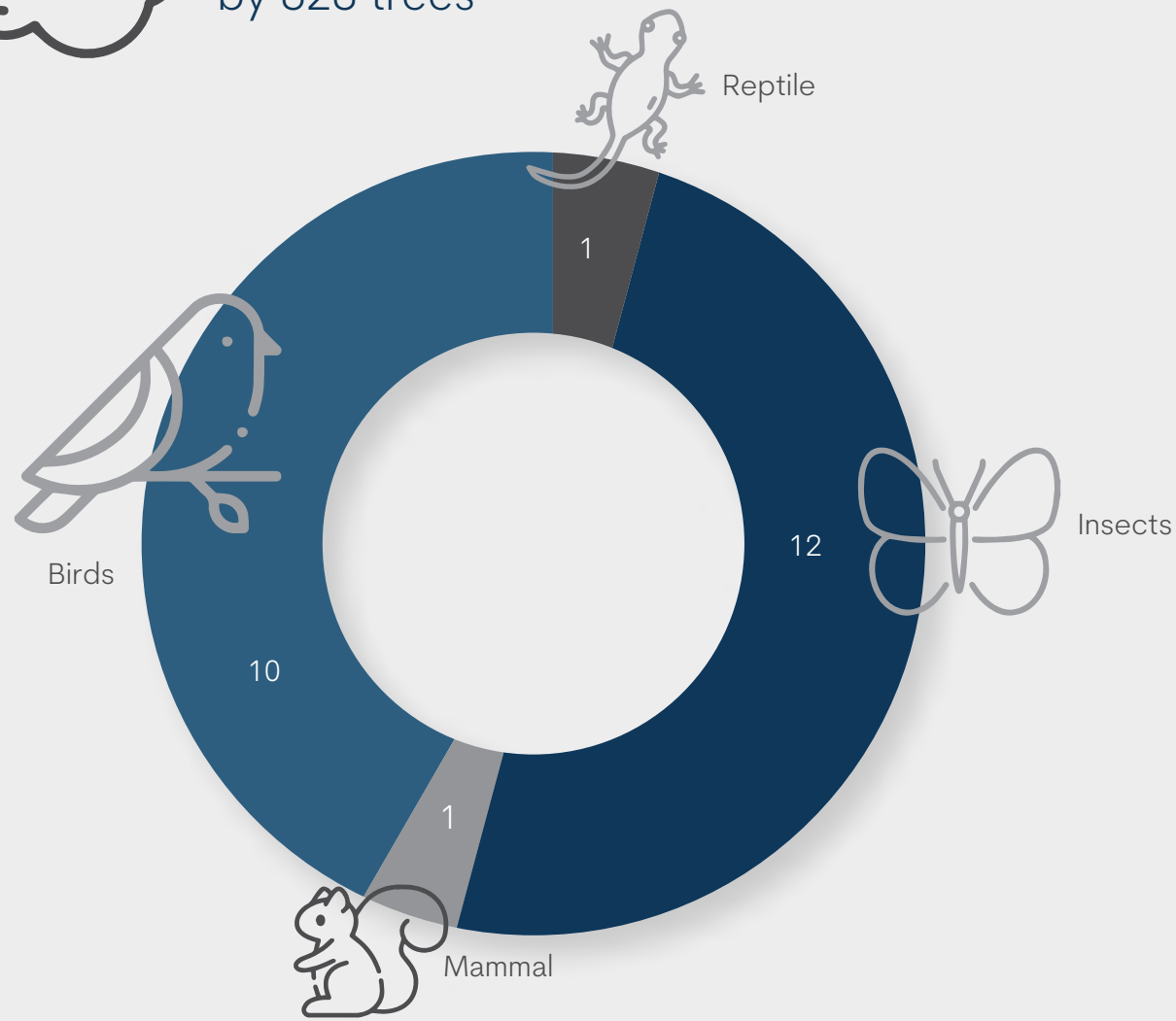
Equinox, BKC, Mumbai

Existing biodiversity profile

- Total 12% green cover with 94% ecological connectivity.
- Habitat comprising of 66 floral species.
- 50% floral species are native to India.
- Habitat supporting 24 faunal species.
- Simpson's Biodiversity Index (SBI) value for trees, shrubs, herbs and climbers was found to be 0.32, 0.50, 0.58 and 0.00 respectively.
- No invasive species were noted.



Total 11,961 Kg of Carbon Sequestered by 523 trees



- Green cover value > 40% of the land area (ground and built structures) is considered as good and 95% ecological connectivity is considered suitable for the faunal species.
- Assessment of the faunal species is based on a single-visit survey. The diversity and population count may vary.
- Simpson's Biodiversity Index value ranges between 0 to 1, a value close to 1 indicates higher diversity and evenness.
- The given Carbon Sequestration values are calculated for trees only and do not include other green patches comprising shrubs, herbs and grass. Also, the Carbon Sequestration value is influenced by factors like the type of species, its girth and height.
- Currently, Urban Heat Island (UHI) value has been represented on the right side, increasing the green cover percentage can help in reducing the UHI effect.
- The images have been processed from USGS Earth Explorer, Landsat.



38 Tree species



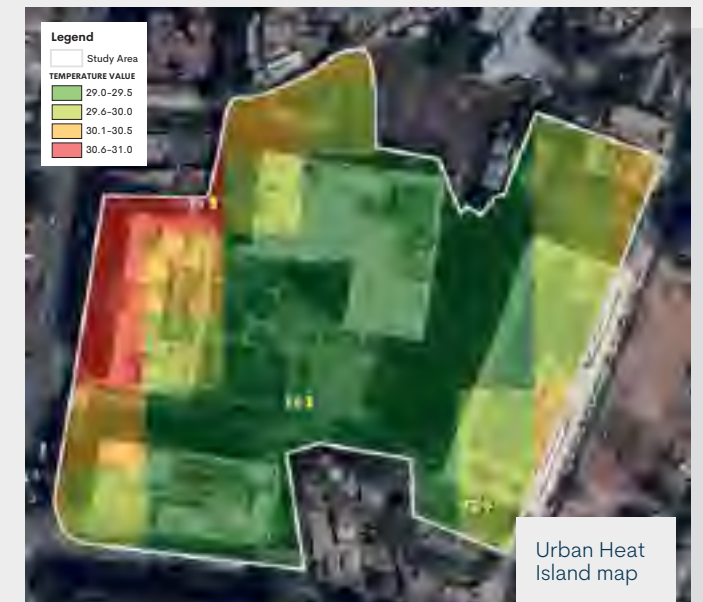
12 Shrub species



12 Herb species



4 Climber species



Implementation framework for management plan

Action plan	Suitability	Long-term management plan	Indicators to monitor success
Inclusion of native species	<ul style="list-style-type: none"> Complete area 	<ul style="list-style-type: none"> Part of regular maintenance activity 	<ul style="list-style-type: none"> Biodiversity composition Species population
Canopy expansion	<ul style="list-style-type: none"> Complete area 	<ul style="list-style-type: none"> Part of regular maintenance activity Light pruning to maintain tree stability and remove diseased parts Avoid pruning in the presence of any active bird nest or other faunal activity 	<ul style="list-style-type: none"> Biodiversity composition Threats Urban Heat Island Carbon storage
Pergolas/green tunnels	<ul style="list-style-type: none"> Along pathways Car parking area On exhaust vents Entry gates Outdoor sitting area 	<ul style="list-style-type: none"> Part of regular maintenance activity Limited pruning Regular watering 	<ul style="list-style-type: none"> Biodiversity composition Urban Heat Island Carbon storage Landscape connectivity
Green façade/hedge Plantation	<ul style="list-style-type: none"> Sections of the building that are completely concretized along the boundary wall 	<ul style="list-style-type: none"> Replacement of dead climbers Regular watering 	<ul style="list-style-type: none"> Biodiversity composition Urban Heat Island Carbon storage
Green roofs	<ul style="list-style-type: none"> Roof top of the buildings 	<ul style="list-style-type: none"> Regular inspection Maintenance of irrigation facility Periodic fertilization 	<ul style="list-style-type: none"> Urban Heat Island Carbon storage
Increasing tree cover	<ul style="list-style-type: none"> Narrowing/reducing excess footpath area and covering with planters Use as dividers between cars in parking areas Near gates Recreational area 	<ul style="list-style-type: none"> Part of regular maintenance activity 	<ul style="list-style-type: none"> Biodiversity composition Species population Urban Heat Island Carbon storage
Promoting heterogeneous environment	<ul style="list-style-type: none"> Green spaces within the campus 	<ul style="list-style-type: none"> Part of regular maintenance activity Collection of leaf litter from pathways and concretized areas only 	<ul style="list-style-type: none"> Biodiversity composition Species population Urban Heat Island
Habitat for butterflies	<ul style="list-style-type: none"> Lawn areas near the boundary wall Garden area 	<ul style="list-style-type: none"> Part of regular maintenance activity Monitoring usage of the habitat 	<ul style="list-style-type: none"> Biodiversity composition Species population Urban Heat Island
Adding water features to enhance habitat for fauna	<ul style="list-style-type: none"> Green spaces within the campus 	<ul style="list-style-type: none"> Removal of dirt/excess algal growth Water replacement, if required Regularly filling the water sources 	<ul style="list-style-type: none"> Biodiversity composition Species population
Invasive species management	<ul style="list-style-type: none"> Location wherever the species is observed 	<ul style="list-style-type: none"> Regular monitoring for the presence of new proliferation Uprooting of newly grown individuals 	<ul style="list-style-type: none"> Threats
Adopting to low-intensity lights	<ul style="list-style-type: none"> Complete campus 	<ul style="list-style-type: none"> Repairing/replacing lights 	<ul style="list-style-type: none"> 100% replacement of existing lights with low intensity lights
Awareness on biodiversity	<ul style="list-style-type: none"> Near gate Butterfly garden Green spaces Recreational location 	<ul style="list-style-type: none"> Maintenance of the informative panels 	<ul style="list-style-type: none"> Questionnaire-based survey within employees



Global Reporting Initiative (GRI) indicators

Relevance to GRI 304 1 : Location of operation sites with the most significant impacts

- There are no nearby protected areas or areas of significant biodiversity value that are situated next to the site.

Relevance to GRI 304 2 : Direct drivers of biodiversity loss

- An invasive species population was discovered on the campus and steps have been suggested to manage their expansion and eliminate them from the premises.

Relevance to GRI 304 3 : State of Biodiversity

- The campuses are in urban areas where the ecosystem has been modified.
- Indian Grey Mongoose (*Herpestes edwards*) listed under Schedule I of the Wildlife Protection Act (WPA), Amendment, 2022 was observed at Candor TechSpace Campuses in East and North zone.
- Sita Ashoka (*Saraca asoca*) categorised as vulnerable in IUCN Red List of Threatened Species was observed at Candor TechSpace, Newtown, Kolkata and Kensington, Downtown Powai, Mumbai.

Relevance to GRI 304 4 : Ecosystem Services

- No impact of the operation was noted on the ecosystem services.

Relevance to GRI 305 : Management of biodiversity related impacts

- Intensive efforts have been made to increase the green cover in the area.
- The operations in the campus do not impact any species or their ecosystem.

Relevance to GRI 304 6 : Halting and reversing the loss of biodiversity

- Brookfield Properties has developed biodiversity policy to achieve Net-zero by 2040.
- Indicators have been developed to assess the progress towards achieving the set objectives.

Relevance to GRI 304 7 : Access and Benefit Sharing

- Not Applicable.

Biodiversity policy^{*}

- Maintain legal compliance with biodiversity related laws and regulations.
- Implement appropriate biodiversity related actions within all our campuses.
- Ensure a minimum of 30% green cover within each campus, with an emphasis on enhancing tree coverage at ground level.
- Reduce dependency on the exotic varieties of plant species and increase the native-to-exotic ratio within the campus.
- Develop and implement Biodiversity Management plans with clear targets and action plans to support the conservation of species, habitats and ecosystems on our campuses.
- Promote ecological connectivity within the campus for convenient movement of faunal species.
- Identify, engage and collaborate with key biodiversity stakeholders to integrate their knowledge, perceptions and guidance to ensure inclusive Biodiversity Management.
- Develop key performance indicators to monitor, review and assess biodiversity performance against measurable targets to drive continuous improvement.
- Communicate biodiversity related progress through relevant ESG related disclosure.

^{*}The Biodiversity Policy will be reviewed on a regular basis and updated as appropriate to ensure relevance to Brookfield Properties' business operations and objectives.



Our knowledge partner



Terracon Ecotech is India's first ecology-based environmental consultancy with a track record of 150+ projects in the areas of Biodiversity Conservation, Ecological Restoration, Inventorisation and plantation/transplantation, Environmental and Ecological Impact Assessment and Climate Change Advisory. Terracon is a NABET accredited category-A and ISO 9001:2015 certified Nature-based Solutions (NbS) company and has been one of India's leading environmental consultancy firms for over 13 years now.