

BIODIVERSITY PARK PROJECT

AT

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELGAUM



BY

Eco - Watch

Centre for Environment & Sustainable Development

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"**BELAVALA NAADU**" – The Land of Growth

- **Belgaum** is strategically located in the foothills of the **Western Ghats** and specifically in the transition belt known as **"Ecotone Belt"** that stretches up to **Ranebennur (approx. 300kms in length & 50 kms wide)**

- More than three ecosystems merge into each other in this belt resulting in **fertile soil**, **optimum rainfall,** thus **favourable climatic conditions** supporting **agriculture**, **horticulture, animal husbandry** & associated occupation that sustained the livelihood of the communities

- Being located in this ***Ecotone Belt*** Belgaum received substantial rainfall for more than six months every year.

- The abundant natural resources of Belgaum has been contributing significantly to the ecological and socio-economic well being and is therefore termed as the **Indicator Region**

- Belgaum was once known as ***"Chota Mahabaleshwar"***. Apart from being ecologically rich, the region is also a religious destination for many.

- Bordering three states **(Karnataka/Goa/Maharashtra),** Belgaum has been promoting peace and culture among its populace and tourists who visit from far away places.

Current Situation:

- Haphazard growth, migrant population and unplanned development it is gradually losing its green cover, salubrious climate and original charm. If not for the presence of lung spaces such as **Cantonment**, **Vaccine Depot**, etc., Belgaum would have lost a great deal.
- **Agriculture**, **horticulture** and **rainfall pattern** are being affected and thereby the economy.
- **Water contamination** has increased over the years due to population explosion in addition to **water shortage.**
- Unprecedented and unplanned growth and developmental activities has given rise to high vehicular pollution thereby affecting the health and well-being of the city's population.
- Ecological demise is sure if no appropriate and immediate measures are undertaken. **Urban biodiversity**, especially with respect to developing regions such as Belgaum, is key to sustain any growth and development






Biological Diversity (Biodiversity):

Conservation and sustainable use of biodiversity are fundamental to ecologically sustainable development. Biodiversity is part of our daily lives and livelihood, and constitutes resources upon which families, communities, nations and future generations depend. Biological diversity is fundamental to the fulfillment of human needs. Loss of biodiversity has serious economic and social costs for any country. Biodiversity has been destroyed substantially in India, during recent times due to various human pressures.




The Biodiversity Park Project:

The ***Jnana Sangama*** campus of ***Visvesvaraya Technological University (VTU)*** is uniquely situated on the outskirts of Belgaum city which is known for its verdant surroundings and a salubrious climate. The VTU campus almost nestles with the foothills of the Western Ghats vegetation, with the evergreen forest being just 30 kms away, near Jamboti.

With the focus of developing a ***Gene-Bank*** of select ***Western Ghats*** plant species, the ***Biodiversity Park*** Project in **V.T.U** will be the first of its kind to be established by any Technological University.

The project is in tune with the conservation ethos of the Indian society. In the years to come this park will be an island of biodiversity conservation within an urban centre. The project will significantly contribute towards the well-being of Belgaum city and its people.

Objectives

- Set up a Bio-Park in the Visvesvaraya Technological University, which will be the **first of its kind**
- Create **awareness** among the community about ***biological diversity*** & its significance & **sensitize** the **youth** and **student community**
- ***Conserve plant diversity*** that are endangered, threatened and are highly valuable for human existence
- Create a ***Carbon Sink*** for future generations with indigenous species to mitigate problems of global warming & climate change
- Create a **Gene-Bank** of important plant species before they become extinct and disappear
- **Promote the culture of conservation** and appreciation towards natural resources and its management
- Involve the **technical faculty** and **students** from various disciplines of VTU towards **enhancing their environmental conscious**
- **Create a facility for students of life science, earth science** & related fields to make use of the VTU Bio-Park for studies and experiments in future.

SHOWCASE THE COMMITMENT & RESPONSIBILITY OF VISVESVARAYA TECHNOLOGICAL UNIVERSITY IN ENVIRONMENTAL CONSERVATION

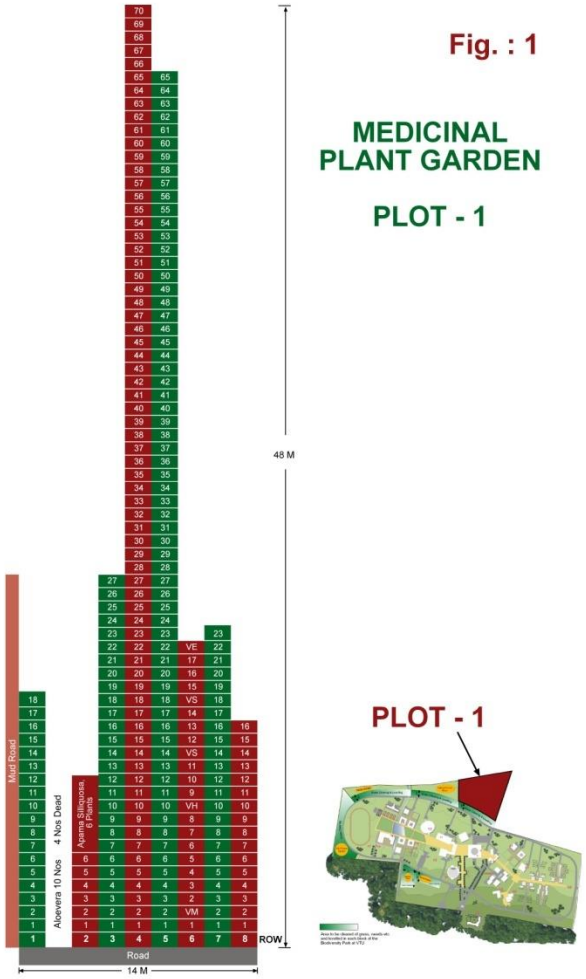
Key Features:

- The VTU will be the first Technological University to contribute significantly towards global conservation efforts by establishing a Biodiversity Park in its campus, with a focus on developing a Gene Bank of the indigenous species of the Western Ghats, a global Biodiversity Hotspot.
- The project will enrich the already beautiful campus with more than 270 species belonging to various families and this will be an additional attraction to the visiting dignitaries.
- The VTU campus will, in future, be a sought after destination for students of various disciplines such as Botany, Zoology, Life Science, Entomology and the like for research and academic purposes.
- The campus will provide unique opportunities for scientists and researchers to carry out integrated and multi-disciplinary studies on climate change, global warming and related themes.
- The project has been designed uniquely with various blocks such as Medicinal Plants Garden, Butterfly Park, Nectar Garden, Wild Flower Garden, Vanas, etc., and keeping in mind the possible enrichment in future.
- The project will also sensitize the students in VTU campus and enhance their environmental consciousness which is essential to protect our ecological heritage.

Theme Based Gardens under the Biodiversity Park Project

Medicinal Plant Garden:

This block consists of species that are medicinally important. A total of **186** saplings are planted in rows, which are documented for proper monitoring and maintenance. A total of **eight** rows accommodate the saplings in this block. This block is also sub-divided into four plots to accommodate the wide range of species




Calophylum inophylum


Garcinia xanthochymus


Salacia

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Medicinal Plants Garden

Species List

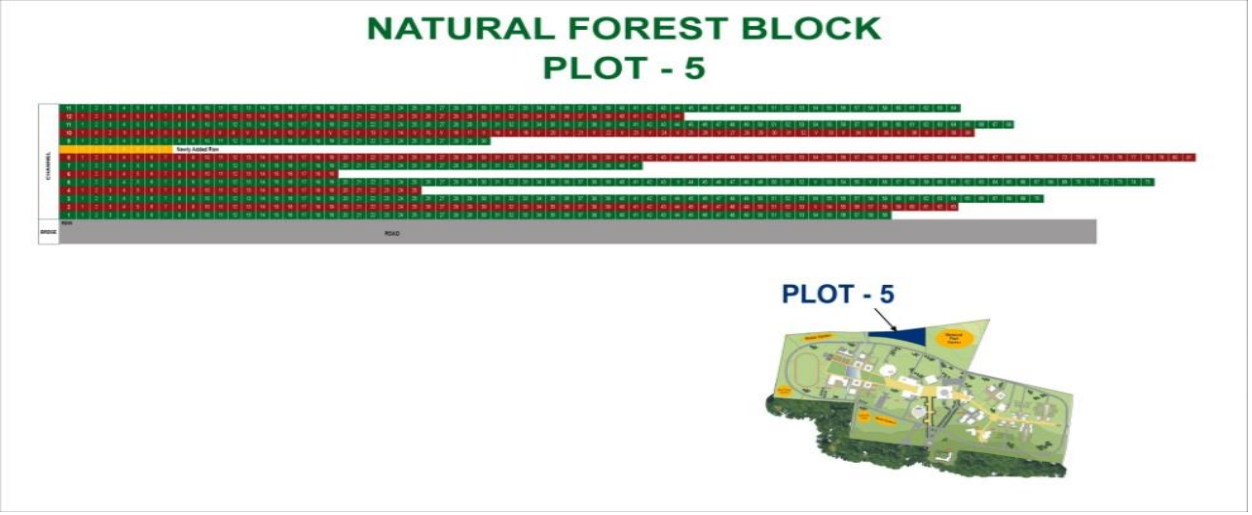
Plot 1

1. Acacia catechu
2. Adhatoda vasica
3. Aegle marmelos
4. Albizia odoratissima
5. Aloe vera
6. Andrographis paniculata
7. Apama siliquosa
8. Aporosa lindleyana
9. Artocarpus heterophyllus
10. Artocarpus lakoocha
11. Asparagus racemosus
12. Azadirachta indica
13. Bassia latifolia
14. Bombax ceiba
15. Breynia retusa
16. Bridelia stipularis
17. Bryophyllum calycinum
18. Buchanania lanzan
19. Butea monosperma
20. Caesalpinia sappan
21. Calamus rotang
22. Calophyllum inophyllum
23. Careya arborea
24. Cassia fistula
25. Cinnamomum macrocarpum
26. Coleus amboinicus
27. Costus speciosus
28. Crysanthemum indica
29. Curcuma angustifolia
30. Curcuma sp- Type-2
31. Elaeagnus latifolia
32. Embelia robusta
33. Emblica officinalis
34. Ervatamia coronaria
35. Feronia elephantum
36. Ficus infectoria
37. Ficus racemosa
38. Flacourtia montana
39. Garcinia indica
40. Gloriosa superba
41. Gmelina arborea
42. Gymnema sylvestre
43. Hemidesmus indicus
44. Ixora coccinea
45. Jatropha curcas
46. Lasiociphon eriooehalus
47. Lawsonia inermis
48. Luvunga eleutherandra
49. Mangifera indica
50. Mesua ferrea
51. Michelia champaca
52. Mimusops elengi
53. Myristica malabarica
54. Nyctanthes arbor-tristis
55. Ochrocarpus longifolius
56. Ochrocarpus longifolius
57. Ocimum sanctum
58. Pandanus furcatus
59. Pedilanthus
60. Piper longum
61. Pterocarpus marsupium
62. Pterocarpus santalinus
63. Salacia chinensis
64. Sapindus laurifolius
65. Saraca indica
66. Symplocos racemosa
67. Syzygium cumini
68. Terminalia arjuna
69. Terminalia bellerica
70. Terminalia paniculata
71. Terminalia tomentosa

Plots 1 & 3

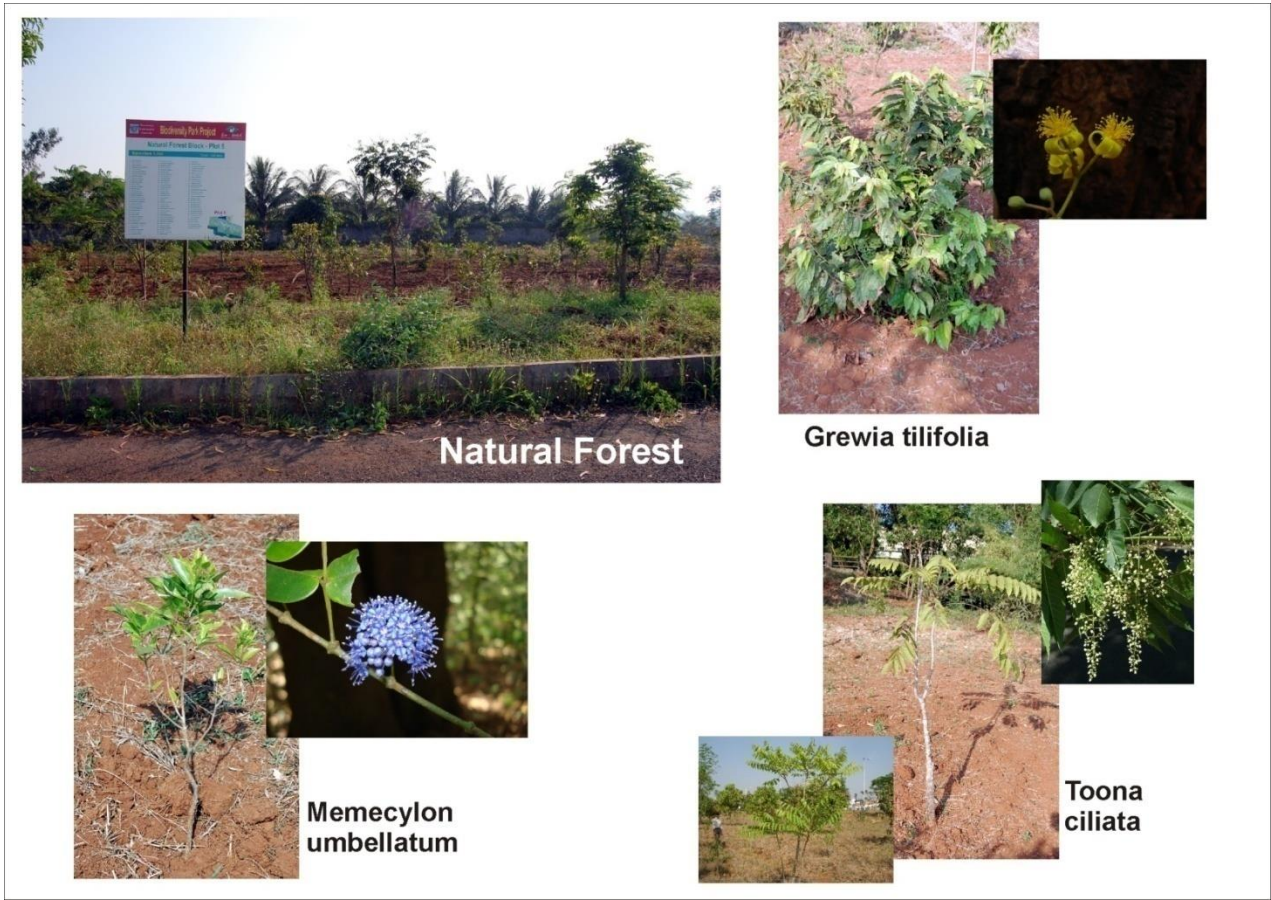
Plot 3

1. Acacia concinna
2. Aegle marmelos
3. Atalantia racemosa
4. Butea monosperma
5. Calamus rotang
6. Careya arborea
7. Cassia fistula
8. Ciltus cinnamomum
9. Clerodendron serratum
10. Corypha umbraulifera
11. Diospyros montana
12. Embelia robusta
13. Feronia elephantum
14. Ficus benghalensis
15. Flueggia leucopyros
16. Grewia microcos
17. Hibiscus rosa-sinensis
18. Ilysanthes indica
19. Lantana Camara
20. Leea indica
21. Moringa oleifera
22. Mussenda frondosa
23. Pterocarpus marsupium
24. Pterocarpus santalinus
25. Putranjiva roxburghi
26. Salacia chinensis
27. Saraca indica
28. Syzygium Jamboos
29. Terminalia arjuna
30. Xylia xylocarpa



Natural Forest Block:

This block consists of a mixed variety of species. The objective is to create an atmosphere of a natural forest. A total of **685** saplings are planted in rows, which are documented for proper monitoring and maintenance. There are a total of **thirteen** rows in this plot accommodating different numbers of saplings and species in every row.



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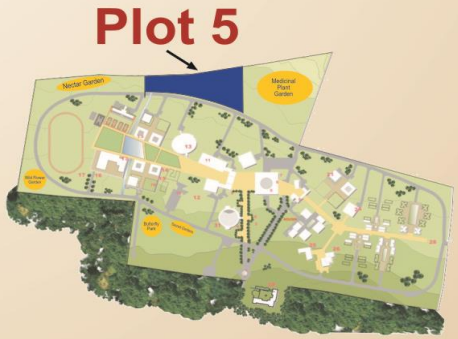
Natural Forest Block

Species List

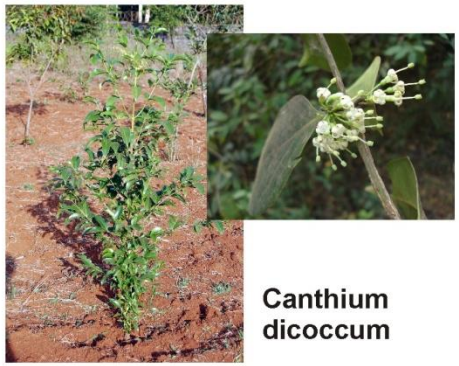
1. Acacia concinna
2. Adina cordifolia
3. Aegle marmelos
4. Alseodaphne semicarpifolia
5. Alstonia scholaris
6. Anthocephalus cadamba
7. Artocarpus heterophyllus
8. Artocarpus hirsutus
9. Artocarpus lakoocha
10. Atalantia racemosa
11. Azadirachta indica
12. Bassia latifolia
13. Bauhinia racemosa
14. Bombax ceiba
15. Bridelia stipularis
16. Buchanania lanzan
17. Butea monosperma
18. Calamus rotang - Dead
19. Callophyllum wightianum
20. Calophyllum inophyllum
21. Canarium strictum
22. Canthium dicoccum
23. Carallia integerrima
24. Careya arborea
25. Caryota urens
26. Cassia fistula
27. Chukrasia parvifolia
28. Chukrasia tabularis
29. Cinnamomum
30. Clerodendron paniculatum
31. Clerodendron serratum
32. Cordia myxa
33. Corypha umbraulifera
34. Dalbergia latifolia
35. Dillenia pentagyna
36. Diospyros montana
37. Dysoxyum malabaricum
38. Elaeagnus latifolia
39. Emblica officinalis
40. Ervatamia heyneana
41. Erythrina indica
42. Feronia elephantum
43. Ficus benghalensis
44. Ficus mysurensis
45. Ficus racemosa
46. Ficus religiosa
47. Flacourtia montana
48. Garcinia combogia
49. Garcinia indica
50. Gmelina arborea
51. Grewia microcos
52. Grewia tilifolia
53. Psidium guajava
54. Holigarana arnotiana
55. Ixora coccinea
56. Jatropha curcas
57. Lagerstroemia lanceolata
58. Lantana Camara
59. Leea indica
60. Linociera Malabarica
61. Lophopetalum wightanum
62. Luvunga eleutherandra
63. Memecylon umbellatum
64. Michelia champaca
65. Mimusops elengi
66. Mitragyna parvifolia
67. Mussenda frondosa
68. Myristica malabarica
69. Odina wodier
70. Olea dioica
71. Pongamia glabra
72. Pterocarpus marsupium
73. Pterocarpus santalinus
74. Putranjiva roxburghi
75. Randia dumetorum
76. Randia uliginosa
77. Salacia chinensis
78. Samanea saman
79. Sapindus laurifolius
80. Singapore Cherry
81. Spondias acuminata
82. Sterculia guttata
83. Stereospermum chelonoides
84. Strychnos nuxvomica
85. Swietenia mahogani
86. Syzygium caryophyllatum
87. Syzygium cumini
88. Syzygium Jamboos
89. Tamarindus indica
90. Terminalia arjuna
91. Terminalia bellerica
92. Terminalia chebula
93. Terminalia paniculata
94. Terminalia tomentosa
95. Thespesia populinea
96. Trema orientalis
97. Vateria indica
98. Vitex altissima
99. Xylia xylocarpa
100. Zanthoxylum rhetsa
101. Ziziphus rugosa



Nectar Garden:

This block consists of species that are rich in nectar and therefore the name. The objective is to have a collection of such species to make it available for the birds, bees, butterflies, etc. A total of **625** saplings are planted in rows, which are documented for proper monitoring and maintenance. There are a total of **fourteen** rows in this plot accommodating different numbers of saplings and species in every row.

Bombax ceiba



Canthium dicoccum

Terminalia bellrica

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Nectar Garden

Species List

1. Acacia concinna
2. Adina cordifolia
3. Albizia lebbeck
4. Albizia odoratissima
5. Alstonia scholaris
6. Anacardium occidentale
7. Artocarpus heterophyllus
8. Azadirachta indica
9. Bassia sp.
10. Buchanania lanzan
11. Calamus rotang
12. Calophyllum inophyllum
13. Calophyllum wightanum
14. Canthium dicoccum
15. Chukrassia tabularis
16. Clerodendron paniculatum
17. Corypha umbraulifera
18. Dalbergia latifolia
19. Dillenia pentagyna
20. Dysoxyum malabaricum
21. Elaeagnus latifolia
22. Emblica officinalis
23. Erythrina indica
24. Flacourtia montana
25. Garcinia combogia
26. Garcinia indica
27. Gmelina arborea
28. Grewia microcos
29. Heptapleurum venulosum
30. Ixora brachiata
31. Lagerstroemia lanceolata
32. Lophopetalum wightanum
33. Mangifera indica
34. Mesua ferrea
35. Mimusops elengi
36. Mitragyna parvifolia
37. Ochrocarpus longifolius
38. Olea dioica
39. Pongamia glabra
40. Premna integrifolia
41. Pterocarpus marsupium
42. Pterocarpus santalinus
43. Samanea saman
44. Sapindus laurifolius
45. Singapore Cherry
46. Swietenia mahogani
47. Syzygium caryophyllatum
48. Syzygium cumini
49. Syzygium Jamboos
50. Tamarindus indica
51. Terminalia arjuna
52. Terminalia bellerica
53. Terminalia chebula
54. Terminalia paniculata
55. Terminalia tomentosa
56. Vateria indica
57. Vitex altissima
58. Zanthoxylum ovlifolium
59. Zanthoxylum rhetsa
60. Ziziphus rugosa

Plot 6

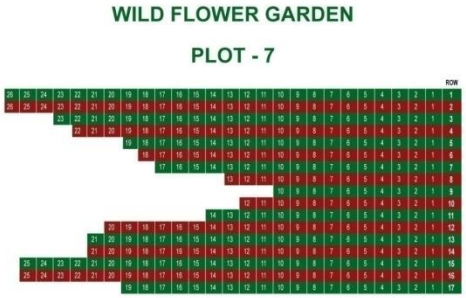
Garden of Wild Flowers:

This block consists of flowering species which dot the Western Ghats. The objective is to create a garden of wild flowers to enrich the aesthetics of the VTU campus. A total of **366 (331+35)** saplings are planted in rows, which are well documented for monitoring and maintenance. There are a total of **seventeen rows** in this plot accommodating different numbers of saplings in each row. There are also two side rows which accommodate 35 saplings in them.

Diptero indicus

Elaeocarpus serratus

Vateria indica



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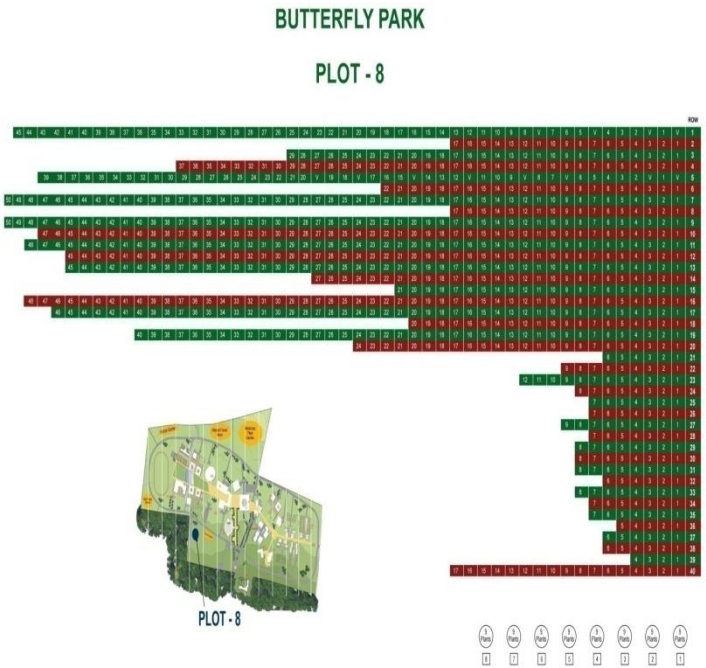
Wild Flower Garden

Species List

1. Acacia concinna
2. Adina cordifolia
3. Albizia lebbeck
4. Albizia odoratissima
5. Alstonia scholaris
6. Anthocephalus cadamba
7. Bauhinia racemosa
8. Bixa orellana
9. Bombax ceiba
10. Bryophyllum calycinum
11. Butea monosperma
12. Cassia fistula
13. Clerodendron paniculatum
14. Dillenia pentagyna
15. Ervatamia heyneana
16. Erythrina indica
17. Gmelina arborea
18. Ixora brachiata
19. Ixora coccinea
20. Jasminum angustofolium
21. Lagerstroemia speciosa
22. Lantana Camara
23. Memecylon umbellatum
24. Mesua ferea
25. Michelia champaca
26. Mimusops elengi
27. Mitragyna parvifolia
28. Mussenda frondosa
29. Nyctanthes arbor-tristis
30. Ochrocarpus longifolius
31. Plumeria acutifolia
32. Saraca indica
33. Stereospermum chelonoides
34. Syzygium cumini
35. Syzygium Jamboos
36. Terminalia paniculata
37. Vateria indica

Butterfly Park:

This block consists of species that are host plants for Butterflies. The key feature of this block is to enrich the diversity of such species and create a habitat for butterflies. A total of **944 (872+72)** saplings are planted in this plot in rows, which are well documented for monitoring and maintenance. There are forty rows in this plot accommodating different numbers of saplings in each row. Few saplings were planted in groups of nine each and there are eight such groups totaling to 72 saplings.




Clerodendron panicularum


Gmelina arborea


Mytragyna parvifolia

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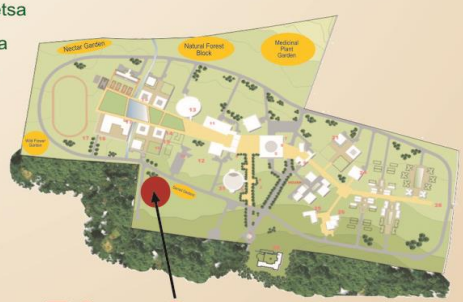
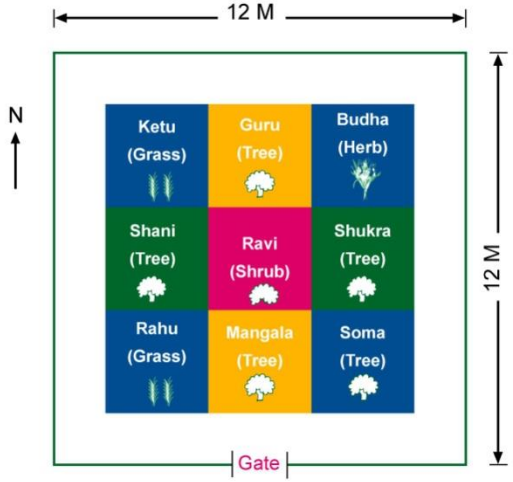
Butterfly Garden

Species List

1. Acacia catechu
2. Acacia ferruginea
3. Adina cordifolia
4. Aegle marmelos
5. Albizia lebbeck
6. Albizzia odoratissima
7. Anacardium Occidentale
8. Azadirachta indica
9. Bauhinia racemosa
10. Bixa orellana
11. Bombax ceiba
12. Bryophyllum calycinum
13. Butea monosperma
14. Calamus rotang
15. Canthium dicoccum
16. Capparis spinosa
17. Caryota urens
18. Cassia fistula
19. Cinnamomum macrocarpum
20. Clerodendron paniculatum
21. Corypha umbellifera
22. Dalbergia latifolia
23. Emblica officinalis
24. Ficus racemosa
25. Ficus religiosa
26. Ficus rhetusa
27. Ficus tsiela
28. Flacourtia montana
29. Flacourtia ramontchi
30. Garcinia combogia
31. Garcinia indica
32. Garcinia xanthochymus
33. Grewia tilifolia
34. Hibiscus rosa-sinensis
35. Ixora brachiata
36. Ixora coccinea
37. Jasminum angustifolium
38. Lagerstroemia lanceolata
39. Lantana camara
40. Linociera Malabarica
41. Lophopetalum wightanum
42. Machilus macrantha
43. Melastoma sp.
44. Melastoma malabathricum
45. Mesua ferrea
46. Michelia champaca
47. Mitragyna Parvifolia
48. Mussenda frondosa
49. Nyctanthes arbor-tristis
50. Olea dioica
51. Pongamia glabra
52. Putranjiva roxburghi
53. Sapindus laurifolius
54. Saraca indica
55. Swietenia mahogani
56. Syzygium caryophyllatum
57. Syzygium cumini
58. Syzygium Jamboos
59. Terminalia arjuna
60. Terminalia bellerica
61. Terminalia chebula
62. Terminalia paniculata
63. Terminalia tomentosa
64. Vateria indica
65. Vitex altissima
66. Zanthoxylum ovlifolium
67. Zanthoxylum rhetsa
68. Ziziphus oenoplia
69. Ziziphus rugosa



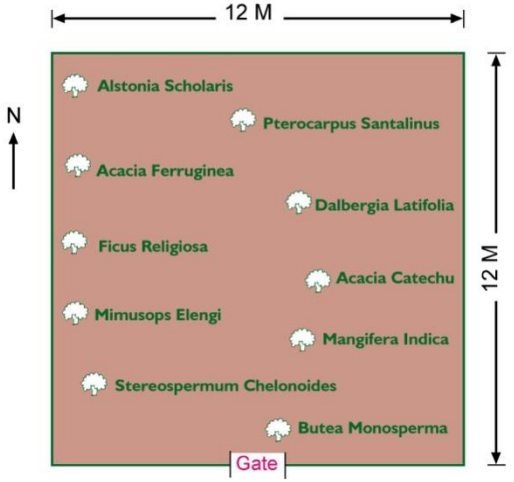
Navagraha Vana



Scale:
1M = 1 cm

Hedge

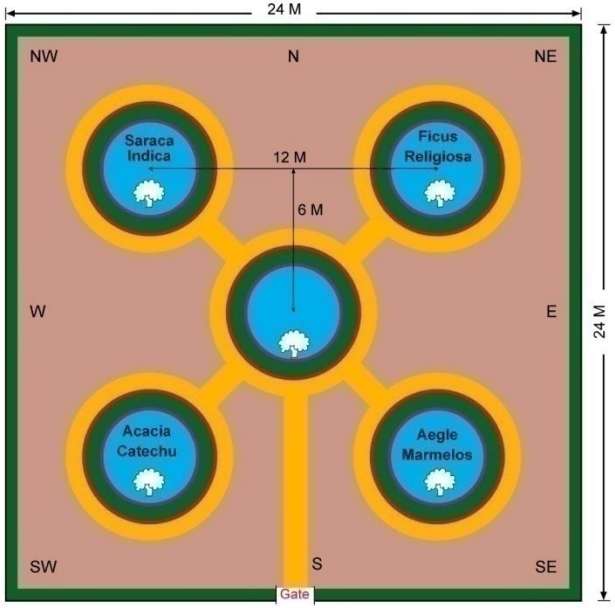
Saptharushi Vana



Scale:
1M = 1 cm

Hedge

Shiva Panchayatana



Scale:
1M = 1 cm

Walk way

Hedge

Bricks

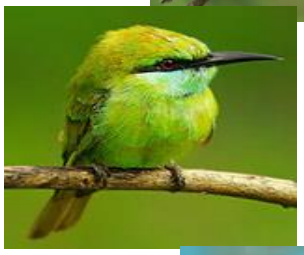
Biodiversity Status at V.T.U Campus:

Based on field studies and benchmark surveys carried out by experts and resource personnel, it has been observed that the VTU campus is gradually becoming a habitat for many types of birds, butterflies, bees, insects, etc. This indicates the positive changes occurring in the biological diversity in and around the campus.

Regular field studies, benchmark surveys have been carried out in the campus and in the surrounding region. According to these studies, it has been observed that nearly 30% increase in the diversity of birds and more at least 25% with respect to the butterflies in this region.

The list of birds and butterflies sighted within the campus are listed below. These observations were made at different time intervals during the study period and then documented.

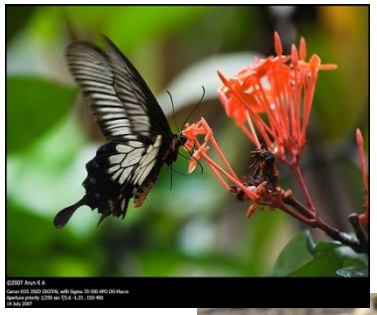
List of Birds documented at VTU Campus



S.NO.	NAMES OF BIRD SPECIES THAT HAVE BEEN OBSERVED IN THE VTU CAMPUS DURING FIELD STUDIES AND BENCHMARK SURVEYS	
1	Blue Rock Pigeon	Green Bulbul
2	Spotted Dove	Red Whiskered Bulbul
3	Rose Ringed Parakeet	Common Babbler
4	Koel	Jungle Babbler
5	House Swift	Magpie Robin
6	White Breasted Kingfisher	Thick billed Flower-pecker
7	Small green Bee-eater	Purple rumpled sunbird
8	Lesser Golden backed Woodpecker	Small Sunbird
9	Large Green Barbet	House Sparrow
10	Bush Lark	Black Headed Munia
11	Swallow	Cattle egret
12	Ashy Drongo	Little Bustard Qail
13	Indian Myna	Crow Pheasant
14	House Crow	White Wagtail
15	Scarlet Minivet	White Spotted Fantail Flycatcher

List of Butterflies documented at the V.T.U campus:

Common Crow
Daneied Egfly
Emigrant
Grassy lemon
Southern Birdwing
Common Rose
Yellow Tiger
Common Rose
Red Peirott
Grey Pansy
Great orange tip



ACTIVITIES CARRIED OUT UNDER THE PROJECT:

Nursery:

Eco-Watch established the Nursery under the first year's activity at Siddapur, U.K.district. This was further expanded to accommodate additional saplings that were collected and procured from different geographical regions. The Nursery is equipped with poly house, germination bed, open-well, pump & motor facility. The nursery was exclusively developed for the project to raise the select species that are being planted at the VTU campus.

Procurement of planting material:

All kinds of planting material (seeds, saplings, seedlings, cuttings, etc.,) from various geographical regions were identified, collected and shifted to the nursery and then to the project-site for planting. 1200 saplings (rare, threatened, endangered, etc.,) were planted under the 2nd year of the project. Project personnel of Eco-Watch were involved in the collection and shifting of these planting material from Tamil Nadu, Goa and parts of Karnataka

Field Visits:

Field visits were made by project personnel to places of unique, academic and project specific interests. Places such as *Moodbhidri* & *Bakkal* in Karnataka and others in *Tamil Nadu* & *Goa*. Various locations in these regions were visited and a few important saplings were collected. These visits have enriched the knowledge base and provided opportunity to learn as well. More than ten visits were made to places outside within the state.

Project Catalogue:

A comprehensive catalogue containing all possible details of species in various blocks will be prepared with appropriate pictures/photos collected from various sources. Documentation along with literature collection, database creation, status of species, etc., with the help of subject experts

Scientific Name: ***Canarium strictum***
Com. Name: **Black Dammer / Dhup**
Fam: **Burseraceae**
Genus: **Canarium**
Current Status: **Moderately Threatened**

HABITAT	HABITAT	USES	ORIGIN	DISTRIBUTION	CHARECTERISTICS
Occasionally canopy trees in the evergreen forests up to 1600 m.	Large trees, buttressed, up to 30 m tall.	General Yields Trade Resin - `Black Dammer'	temperate and tropical Asia	India - Western Ghats, Shevoroys (Endemic) All over hills, < 19*N, < 1200m Districts - Bombay (Mah.), Uttara Kannada, Chikmangalur, Hassan, Coorg (Karn.) Cannanore, Palakkad, Trivandrum (Kerala), Courtallum (Tamil Nadu), Goa	exudes dark brown to black Resin oozing from cut end of trunk.

Benchmark Survey:

Benchmark surveys of birds, butterflies, insects, etc., and documentation in the form of reports, photographs, slides and other presentation material have been undertaken at regular intervals in the campus . Initial surveys will be carried out and subsequent field studies have been carried out on a bi-monthly basis by professionals and experts.

COFFEE TABLE BOOK:

A Coffee Table Book on the project can be produced with colorful pictures, photographs, illustrations, etc., along with details of the project, its unique features, history and background, role of VTU in addressing issues such as global warming and climate change and the like, which can be given as a memento to the visiting dignitaries. This will greatly enhance the prestige of VTU as it will give the impression that the VTU looks beyond the confines of engineering and technology.

At a time when the world is worried about the loss of biodiversity, the VTU taking interest in developing a Biodiversity Park with a focus on creating a Gene Bank of tropical species will make a significant impact and difference to the society.

About Eco-Watch

ECO-WATCH has been in the forefront of *Green Movement* in Karnataka for more than a decade. The Centre has significantly contributed towards environmental conservation and sustainable development in Karnataka.

Urban-Forestry, Natural Resource Management, Eco-Development, Sustainable Livelihoods and related issues are the key areas of operation.

Eco-Watch has been successful in approaching the community through its simple yet highly effective outreach initiatives, which has sustained and stabilized a large portion of its fundamental field based research, academic and experimental programmes.

Addressing environmental issues through stratified advocacy, and policy level implications have been the key components over the years.





Achievements of Eco-Watch

- Created major **Urban Forest in 200 acres** of area belonging to **Army ASC Centre** in Bangalore
- Set up **Regional Bio-Parks** in Bangalore, Tumkur & Kolar districts under **Indo-Norwegian Environment Programme** (INEP)
- Created **artificial water bodies through rainwater harvesting** techniques in Bangalore
- Setting up the largest **Lung Space for Bangalore in 600 acres** area in city outskirts
- Has established **Eco-Parks** and **Woodlots** in 50-acre area in peri-urban regions
- The centre has been responsible in creating massive awareness on key environmental issues in different parts of the state over the last 10 years through publication, films and awareness campaigns
- Rejuvenated and restored lakes/waterbodies in Bangalore
- **Published several awareness and information material** on various ecological & environmental issues
- Developed **manuals / field guides** for ecological studies for teachers and students
- Conducted ***Green Teachers Training Programme*** in Tumkur, Kolar and Bangalore districts to rain teachers & students on biodiversity conservation
- Won **"RAJIV GANDHI ENVIRONMENT AWARD"** in **2005-06** for outstanding contribution to Environment in Karnataka state
- Won the **"UNITED NATIONS-FAO AWARD"** for documentary film on ***Shepherds of North Karnataka***
- Won the ***Best Voluntary Organisation*** award from **Rotary International**

THANK YOU