

# **GREEN AUDIT**

**Govt. V.Y.T. P.G. Autonomous College Durg  
(C.G.)**



**2015-16**



## **Members of Green Audit Committee**

|                         |                     |
|-------------------------|---------------------|
| Dr. Ranjana Shrivastava | Professor and Head  |
| Shri L. K. Chelikswami  | Assistant Professor |
| Smt. Gayatri pandey     | Assistant Professor |
| Dr. K.I. Toppo          | Assistant Professor |
| Dr. G.S. Thakur         | Assistant Professor |
| Dr. Shubha Gupta        | Assistant Professor |

## **External Expert – Green Audit Committee**

|                  |  |
|------------------|--|
| Dr. J. K. Tiwari | Professor and Head,<br>Department of Botany, Kalyan College,<br>Bhilai                       |
| Dr. Sushma Mene  | Professor and Head,<br>Department of Botany, Bhilai Mahila<br>Mahavidyalaya Sector- 9 Bhilai |

## Introduction:

The term “Green” means eco-friendly or not damaging the environment. This can acronymically be called as “Global Readiness in Ensuring Ecological Neutrality” (GREEN). Green accounting can be defined as systematic identification, quantification, recording, reporting & analysis of components of ecological diversity & expressing the same in financial or social terms. “Green Auditing”, an umbrella term, is known by another name “Environmental Auditing”. There is a provision of green audit in college campus. A committee has been formed to monitor the proper conservation and plantation of the plants in the campus. As per the suggestions made by IQAC, botany department is given the responsibility to do green audit with cooperation of the environmental experts of the state. A report on green audit has been prepared by department of botany Govt .V.Y.T. PG. Autonomous College Durg (C.G.). This college was established in 1958 and accredited with Grade 'A' by NAAC, Bengaluru. Total area of the college main campus is 14 acres, of which 31 percent is covered by herbs, shrubs and trees, including valuable medicinal flora. The plants have been systematically identified by the green audit committee. There are more than 431 plant species were audited. The green audit report has been discussed with environmental experts of Durg and Bhilai with suggestions to increase greenery in campus. Extra efforts have been taken by the college to create environment consciousness amongst students. One major step in this regard is the extensive plantation program organized by NSS, NCC, garden committee and PG. students of botany department. Plantation is encouraged by principal and faculties of all departments to increase greenery and reduce carbon emission effects. Renovation of the garden at the entrance was done with financial support from Jan Bhagidari Samiti. Existing gardens are also maintained by the garden committee of this college. Extension programs also organized to create environment awareness and conservation of biodiversity amongst the students and public. In this regard extension program was organized at Matri garden Bhilai ( a popular public garden of Durg district, maintained by Bhilai Steel Plant ).

Activities organized to create greenery and its conservation at college campus is as follows-

- Plantation of diversified species
- Vegetative propagation
- Uses of medicinal plants
- Identification of plants species

### Plantation of diversified species:

To create- green cover, eco-friendly atmosphere, pure oxygen at the college campus, plantation program is organized every year with involving all students, principal, and all departments faculty members. In this session van mahotsav program was organized and about 100 ornamental, avenue, medicinal plant with rare and exotic beautiful trees was planted in botanical garden and other parts of college campus. To keep the greeneries in the campus, we regularly maintain the gardens which are looked after by paid staff under the guidance of garden committee members. Moreover, every year we try to plant new trees. Seasonal flower garden is also a unique feature of this college.

### Vegetative propagation:

To learn how to propagate vegetatively the garden vegetation, training program is organized for students every year by expert gardener. Students learned various propagation techniques like cutting, grafting, and gooty.

### Uses of medicinal plants:

There are many medicinal plants are planted in college botanical garden. The plants have medicinal value but students don't have knowledge how to use and they can't identify the particular plants, so therefore faculty members of botany department help them to identify with scientific name and give information about medicinal uses of the plants.

### Identification of plant species:

There are so many plant species are present at college campus. The faculty member of the botany department audited and identified of various plant species with the help of flora.

## List of the Audited plants

| S.No. | Scientific Name of Plant        | Local Name           | Family          | Uses                                     | Nos |
|-------|---------------------------------|----------------------|-----------------|--|-----|
| 1     | <i>Acacia melanoxylon</i>       | Australian acacia    | Mimosaceae      | Social Forestry                          | 01  |
| 2     | <i>Albizia lebbek</i>           | Siris (Black)        | Mimosaceae      | Avenue Tree, Timber, Skin, Bronchitis    | 04  |
| 3     | <i>Alstonia scholaris</i>       | Chhatim              | Apocynaceae     | Avenue Tree, Malaria                     | 27  |
| 4     | <i>Anthocephalus cadamba</i>    | Cadam                | Rubiaceae       | Avenue Tree, Aesthetic                   | 01  |
| 5     | <i>Azadiracta indica</i>        | Neem                 | Meliaceae       | Avenue Tree, Skin,                       | 15  |
| 6     | <i>Bauhanian variegata</i>      | Kachnar              | Cesalpiniaceae  | Avenue Tree, Ornamental                  | 01  |
| 7     | <i>Bixa orellana</i>            | Sinduri              | Bixaceae        | Industrial food color                    | 01  |
| 8     | <i>Cassia fistula</i>           | Amaltas              | Cesalpiniaceae  | Avenue Tree, Laxative                    | 27  |
| 9     | <i>Cassia siamea</i>            | Chakundi             | Cesalpiniaceae  | Avenue Tree, Ornamental                  | 02  |
| 10    | <i>Casuarina equisetifolia</i>  | Jhau                 | Caurinaceae     | Social Forestry, Diarrhea                | 02  |
| 11    | <i>Cocos nucifera</i>           | Narial               | Palmaceae       | Fruit Edible                             | 01  |
| 12    | <i>Dalbergia sissoo</i>         | Sheesham             | Papilionaceae   | Avenue Tree, Timber,                     | 31  |
| 13    | <i>Delonix regia</i>            | Gulmohar             | Caesalpiniaceae | Avenue Tree, Ornamental                  | 06  |
| 14    | <i>Emblia officinalis</i>       | Amala                | Euphorbiaceae   | Triphla, Skin, Tannins                   | 02  |
| 15    | <i>Ficus bengalensis</i>        | Bargad               | Moraceae        | Avenue Tree, Aesthetic                   | 03  |
| 16    | <i>Jacaranda mimosifolia</i>    | Nila Gulmohar        | Bignoniaceae    | Ornamental                               | 02  |
| 17    | <i>Leucaena leucocephala</i>    | Shubabul             | Mimosaceae      | Social Forestry, Fodder                  | 14  |
| 18    | <i>Mangifera indica</i>         | Aam                  | Anacardiaceae   | Avenue Tree, Fruit Edible, Timber        | 03  |
| 19    | <i>Mimusops elengi</i>          | Maulsiri             | Sapotaceae      | Avenue Tree, Ornamental                  | 02  |
| 20    | <i>Moringa oleifera</i>         | Munaga               | Moringaceae     | Blood Pressure, Fruit Vegetable          | 01  |
| 21    | <i>Nyctanthes arbor-tristis</i> | Harsingar            | Oleaceae        | Ornamental, Diabetic                     | 01  |
| 22    | <i>Peltophorum ferrugineum</i>  | Copper Pod           | Caesalpiniaceae | Avenue Tree, Ornamental, Social Forestry | 40  |
| 23    | <i>Pithecolobium dulce</i>      | Ganga Emli           | Mimosaceae      | Hedge, Fruit Edible                      | 06  |
| 24    | <i>Plumeria alba</i>            | Temple Tree (Champa) | Apocynaceae     | Ornamental                               | 05  |
| 25    | <i>Polyanthia longifolia</i>    | Ashok                | Annonaceae      | Avenue Tree, Ornamental                  | 06  |

|    |                                  |              |                 |  |    |
|----|----------------------------------|--------------|-----------------|--|----|
| 26 | <i>Pongamia pinnata</i>          | Karanj       | Papilionaceae   | Avenue, Insecticide, Skin              | 28 |
| 27 | <i>Syzygium cuminii</i>          | Jamun        | Myrtaceae       | Avenue, Diabetes, Fruit Edible, Timber | 01 |
| 28 | <i>Tabebuia rosea</i>            | Trumpet Tree | Bignoniaceae    | Ornamental                             | 01 |
| 29 | <i>Tabernaemontana coronaria</i> | Chandni      | Apocynaceae     | Ornamental                             | 02 |
| 30 | <i>Tamarindus indica</i>         | Imli         | Caesalpiniaceae | Avenue, Fruit Editable                 | 03 |
| 31 | <i>Tecoma stans</i>              | Yellow Bell  | Bignoniaceae    | Ornamental                             | 10 |
| 32 | <i>Tectona grandis</i>           | Sagon        | Verbenaceae     | Furniture Of best Quality              | 04 |
| 33 | <i>Thevetia peruviana</i>        | Pili Kaner   | Apocynaceae     | Ornamental, Aesthetic                  | 12 |
| 34 | <i>Zizyphus jujube</i>           | Ber          | Rhamnaceae      | Fruit Edible, Fodder                   | 04 |

## Medicinal Plants

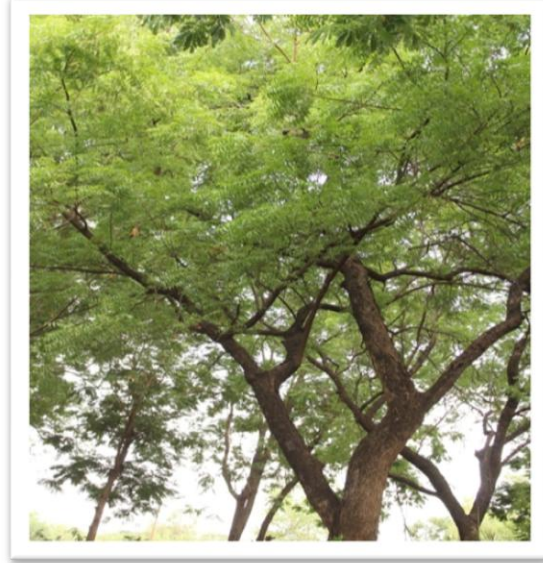
| S.No. | Scientific Name of Plant       | Local Name   | Family         | Uses  | Nos |
|-------|--------------------------------|--------------|----------------|---|-----|
| 01    | <i>Adhatoda vasica</i>         | Adusa        | Acanthaceae    | Espectorent   | 11  |
| 02    | <i>Aloe vera</i>               | Ghee Kwar    | Liliaceae      | Fever, Constipation, Piles, Skin, Jaundice, Leprosy           | 16  |
| 03    | <i>Andrographis paniculata</i> | Kirayat      | Acanthaceae    | Fever, Dysentery, Dyspepsia, Stomachic                        | 27  |
| 04    | <i>Asparagus racemosus</i>     | Satawar      | Liliaceae      | Tonic, Dysentery, Leprosy, T.B., Night Blindness              | 05  |
| 05    | <i>Catharanthes roseus</i>     | Sada Suhagan | Apocynaceae    | Leukemia, Diabetic  | 22  |
| 06    | <i>Cymbopogon citrates</i>     | Lemon Grass  | Poaceae        | Bronchitis, Fever, Rheumatism, Leprosy                        | 26  |
| 07    | <i>Gymnema sylvestre</i>       | Gurmar       | Asclepiadaceae | Diabetic, Ulcer, Bronchitis, Piles, Snake Bite                | 11  |
| 08    | <i>Oscimum sanctum</i>         | Tulsi        | Lamiaceae      | Asthma, Bronchitis, Vomating, Malaria, Ring Worm              | 14  |
| 09    | <i>Rauwolfia serpentine</i>    | Sarpgandha   | Apocynaceae    | High Blood Pressure, Sebativ, Mental Disorder, Anti Microbial | 12  |
| 10    | <i>Tinospora cordifolia</i>    | Giloey       | Menispermaceae | Diabetic, Tonic   | 02  |
| 11    | <i>Vitis quadriangularis</i>   | Harjod       | Vitaceae       | Joint and Bone Health   | 02  |
| 12    | <i>Withania somnifera</i>      | Ashwagandha  | Solanaceae     | Asthma Bronchitis Arthritis, Rheumatism, Leucoderma           | 05  |

# Clean Green College Campus At A Glance

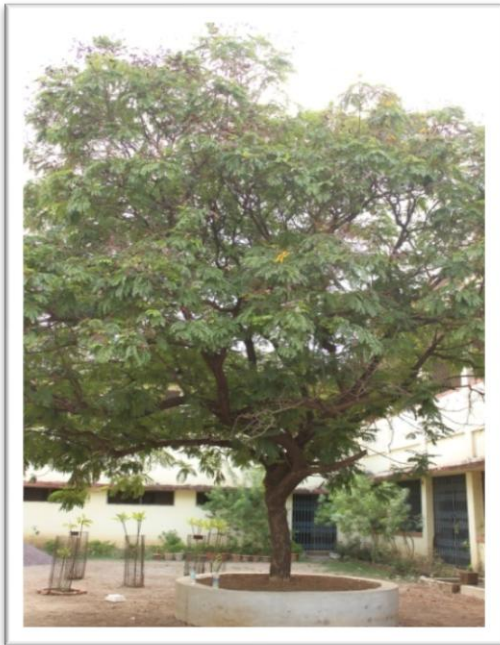




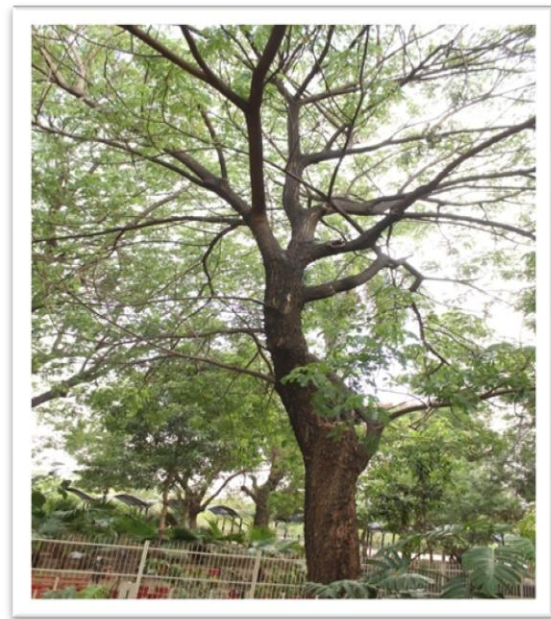
*Polyanthia longifolia*



*Azadiracta indica*



*Peltophorum ferrugineum*



*Albizzia lebbeck*

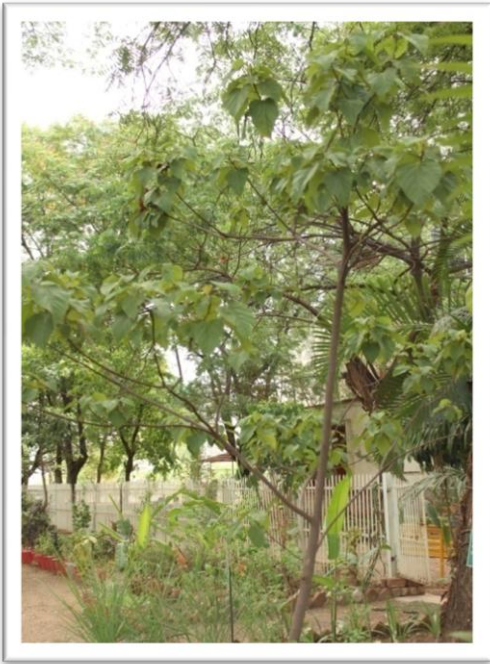




*Acacia melanoxylon*



*Polyanthia longifolia*



*Bixa orellana*



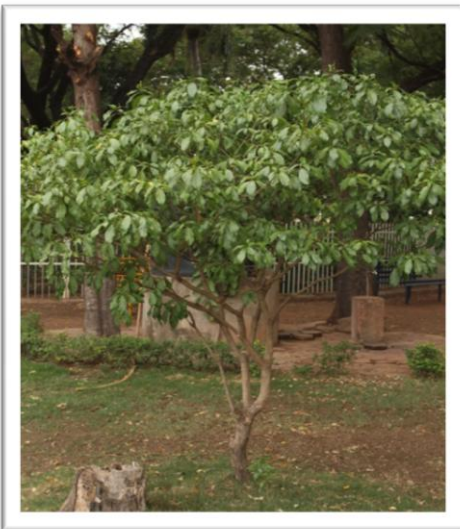
*Ficus bengalensis*



*Bauhania variegata*



*Anthocephalus cadamba*



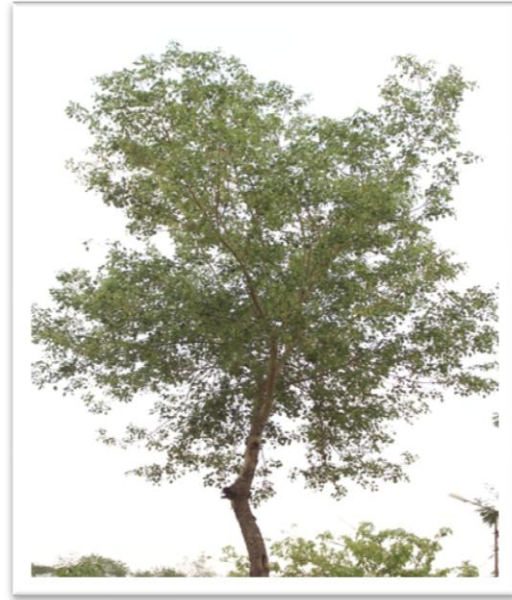
*Tabernaemontana coronaria*



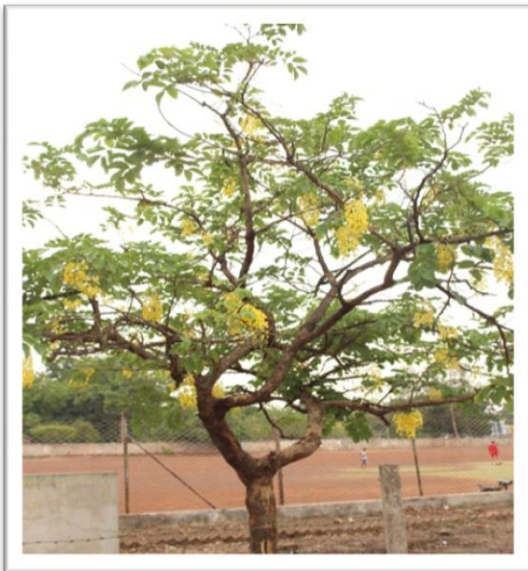
*Alstonia scholaris*



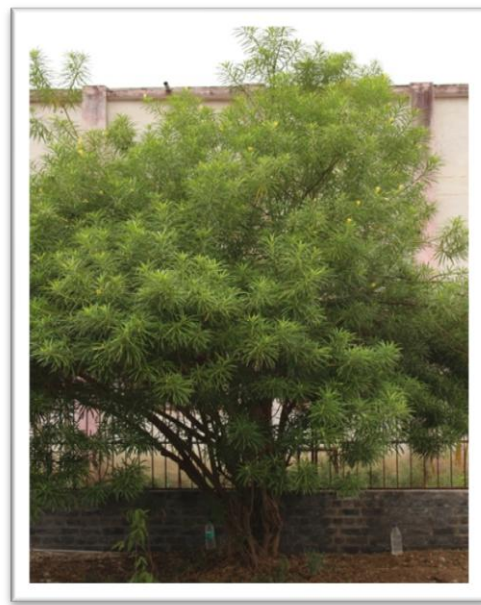
*Jacaranda mimosifolia*



*Dalbergia sissoo*



*Cassia fistula*



*Thevetia peruviana*



*Cymbopogon citratus*



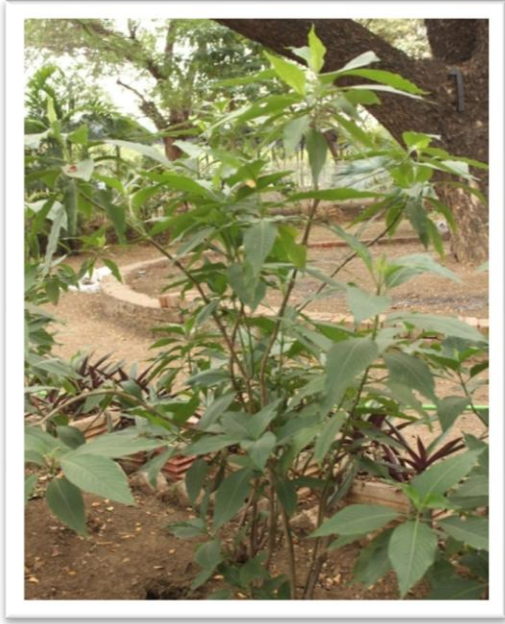
*Aloe vera*



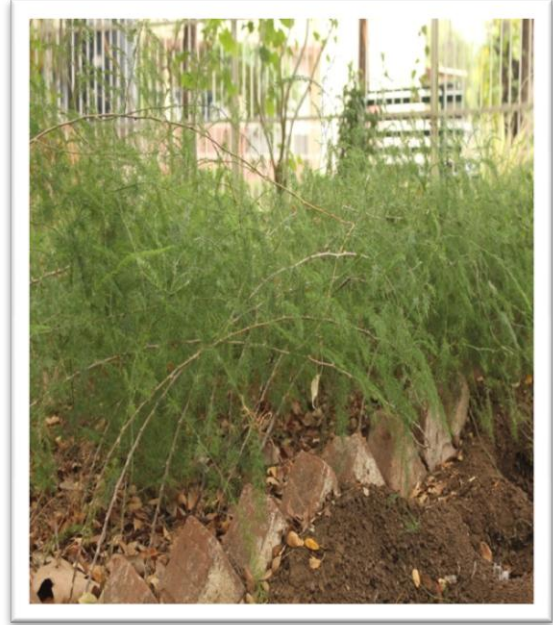
*Tinospora cordifolia*



*Rauwolfia serpentina*



*Adhatoda vasica*



*Asparagus racemosus*



*Vitis quadrangularis*

## Awareness activity about medicinal plants organized by department of Botany

| Date      | Activity  |
|-----------|---|
| 12-1-2016 | Biotechnology - Visit to botanical garden and significance of medicinal plant |
| 29-7-2015 | Physics - Visit to botanical garden and significance of medicinal plant       |
| 09-1-2016 | Visit to Maitri Garden for awareness about medicinal plants                   |





Photograph of students and faculty members during plantation program of van mahotsav.

# **Suggestion for Future Development of Green & Clean Campus**

1. Improve the greenery up to 50% by plantation like trees and medicinal plants in the campus.
2. Plantation of water harvesting plants.
3. Ecofriendly management.
4. Development of medicinal garden.
5. Organic farming for the support of nature and environment.
6. Development of pollution free zone
7. Awareness about cleanliness and maintenance of flora and fauna.