



# Bhilai Mahila Mahavidyalaya



Hospital Sector, Bhilai Nagar (C.G.)

NAAC accredited 'B' grade

Affiliated to Hemchand Yadav Durg, University Durg (C.G.)

Recognized Under Section 2(f) and 12(b) of UGC Act 1956

Run by Bhilai Education Trust

Web: [www.bmmbhilai.com](http://www.bmmbhilai.com)

Email: [bmahila@rediffmail.com](mailto:bmahila@rediffmail.com)



**GREEN AUDIT REPORT**

**2022-23**

Activate Windows  
Go to Settings to activate Windows.

The College had a humble start in 1979. with just two faculties of Science and Home Science run in the two rooms of a local girls school run by Bhilai Steel Plant, with a handful of students, four teachers and a Principal. The foundation of college building was laid by the Honourable Chief Minister of Madhya Pradesh Shri Virendra Kumar Sakhlecha on 3rd Nov, 1978 . The college shifted to its present independent, self contained building constructed on an area of 14 acres of land given by Bhilai Steel Plant situated on the main route between the township of Bhilai and Durg, which is easily accessible even to the students commuting by the public transport. Monitored and guided by the Bhilai Education Trust, Pt. Ravishankar Shukla University, Raipur and presently under affiliation of Hemchand yadav University, Durg , Department of Higher Education, Govt. of Chhattisgarh, Raipur and supported by the tireless efforts and efficiency of the dedicated staff and talented students, the institution has grown from a tiny sapling to a mighty tree, with its deep roots and branches spread over diversified fields of activities. In the span of these three decades and more, the strength of students has gone up to almost 1800 and that of the staff to almost 100. The college is recognized under Section2 (f) and 12(B) of the UGC Act, 1956.

Environmental Issues & problems undermine the sustainable economy of the cities, beside Cities with bad living standards for society are opened to social and political instability environmental protection is very essential element for sustainable urban management. Urban greenery is one kind of natural resources of any institution. Vegetation has health and aesthetic importance for human being beautifies in institute, cities and our planet. Green audit is most efficient and ecological way to solve the various environmental issues and problems. Green audit can be defined as systematic identification, analytical measurement of plant species including tree, shrubs, herbs, seasonal plants and surrounding flora and fauna. “Green Audit” term is known by another name environmental auditing. There is a provision of green audit in college campus.

After first cycle of NAAC in the month of September 2015 college was established a formal Green Audit Committee to developed eco-friendly environment and take care the Mother Nature surrounding in college campus.

### **Objectives:-**

The main objectives of green audit are –

1. To aware students to real concerns of environment and its Sustainability.
2. To identify the plant spp. and their uses.
3. General information regarding plant, their utility and importance.
4. To prepare a present status of environment compliance.

## **Methodology**

Bhilai Mahila Mahavidyalaya, Bhilai is one of the leading Girls college in twin city, The green audit plan was started in September 2015 to till date. The physical status of plants i.e. healthy, diseased, medicinal and ethno-botanical values were recorded and maintained by dept. of Botany. Waste management, biodiversity status of the flora fauna of college premises preparation of composed is our specialty of green audit .

Following study area were covered for auditing –

- a. Ethenomedicinal zone
- b. Fruit giving trees/shrubs
- c. Vegetable zone
- d. Campus surrounding education department
- e. Hostel area
- f. In front of auditorium

## **Green Campus –**

Total plants – 4083(2021-2022)

New plants given by students:-141

Plantation by different agencies:-38

Plants died during the year due to excessive rainfall 2022-2023- 216

Plants grown in college campus in the year 2022-2023- **4046 nos**

## **Eco-friendly activities going on the campus –**

1. Maintenance and caring of the trees around the campus.
2. Timely dispose of waste from the campus.
3. Celebration of various important day with students and faculties e.g. world environment day, world conservation day.

# **Green Audit Report 2022-23**

## **Green Audit Assessment Team (2022-2023)**

### Internal Team

1. Dr, Sandhya Madan Mohan, Principal, BMM, Bhilai
2. Dr. Sunita G. Rao, IQAC incharge, BMM Bhilai
3. Dr. Pratiksha Pandey, Green Audit Incharge, BMM Bhilai
4. Dr. Deepti Chauhan, Member of Green audit committee, BMM Bhilai
5. Miss Alpana Adil, Member of Green audit committee, BMM Bhilai
6. Miss Heena Verma, Member of Green audit committee, BMM Bhilai

### Externals Team

Dr. Meenakshi Bhardwaj  
Assistant Professor  
Indira Gandhi Government P.G., College,  
Vaishali, Nagar, Bhilai, Chhattisgarh  
**External Auditor**

Dr. Gunwant Chandrol  
HOD, Botany  
Kalyan Postgraduate College,  
Bhilai Nagar, Chhattisgarh  
**External Auditor**

# Green campus





# Activities under green audit

## 1. Plantation in campus



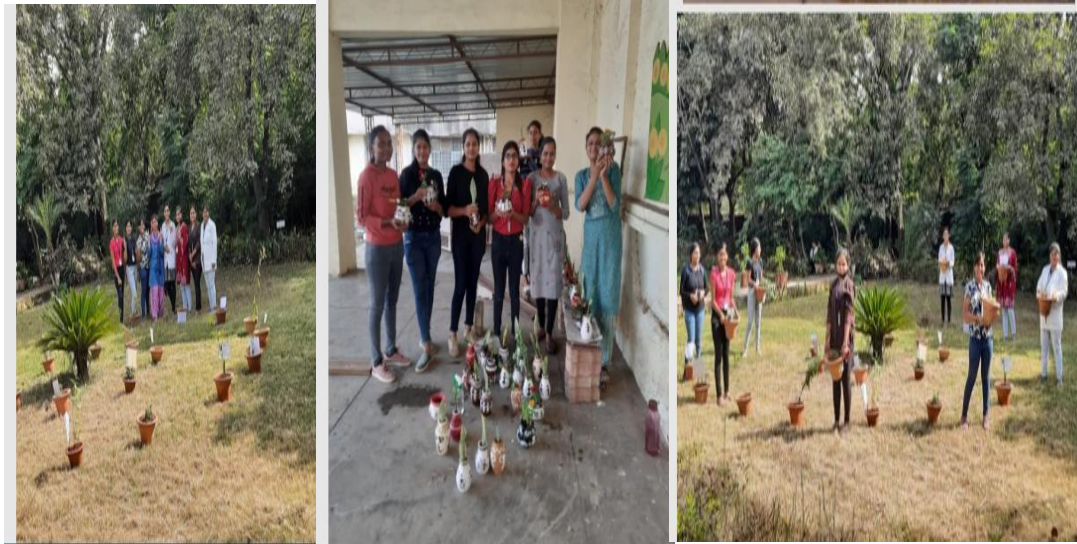




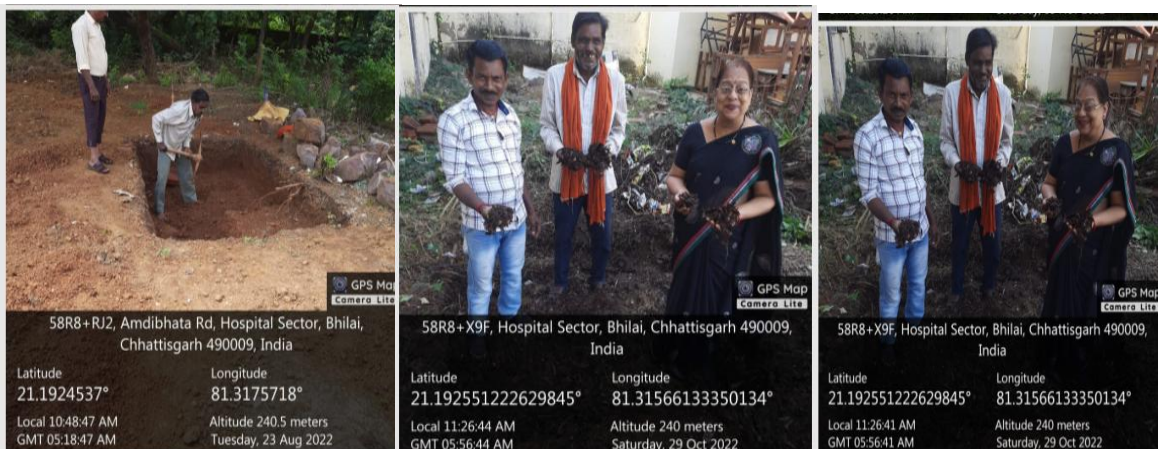
## 2. Regular cleaning and maintenance of college campus



### 3. Different activities regarding clean and green environment of college campus



### Compost Making



### Waste Management :-

Different wastes like food, paper, plastic plate, cups, glasses, dust, solid waste was kept in waste bin, which is daily carrying by municipal employee for recycling.



4. The project “Medicinal Plants in Urban Area”, which has been completed by the Department of Botany has added 85 and 58 medicinal plants in the college Botanical Garden. Students of BSc II and BSc III have collected these numbers of plants under the project which has added value to the greenery of the Botanical Garden and has helped in creating a medicinal plant zone in the college.

Roll No. \_\_\_\_\_  
Name of Student \_\_\_\_\_  
Class \_\_\_\_\_  
Session \_\_\_\_\_  
Name of \_\_\_\_\_

Plant \_\_\_\_\_  
Feedback about project \_\_\_\_\_  
Sim. \_\_\_\_\_

1	Bhavika Tiwari					
2	Bhumi (Bout Kund)	B.Sc 3 <sup>rd</sup> year	2022-23	Amle	यह प्रोजेक्ट हमें बहुत ही मज़ा आया।	अच्छा
3	Bhumi (Dev Kumar)	B.Sc 3 <sup>rd</sup> year	2022-23	Haldi	यह प्रोजेक्ट बहुत ही मज़ा आया।	अच्छा
4	Chesta Deshukh	B.Sc 3 <sup>rd</sup> year	2022-23	Bay leaf	It was a good project and something diff.	अच्छा
5	C.H. Raja					
6	Damini Maikam	B.Sc 3 <sup>rd</sup> year	2022-23	Grandberg	It was a good project. I got good knowledge various medicinal plants used.	अच्छा
7	Dhanu	B.Sc 3 <sup>rd</sup> year	2022-23	Turmeric	यह प्रोजेक्ट हमें बहुत ही मज़ा आया।	अच्छा
8	Diganta	B.Sc 3 <sup>rd</sup> year	2022-23	Turmeric	It was very nice and something diff.	अच्छा
9	Dipti Jaiswal	B.Sc 3 <sup>rd</sup> year	2022-23	Grandberg	It was a good project. It helps to gain knowledge.	अच्छा
10	Haukina Salam	B.Sc 3 <sup>rd</sup> year	2022-23	Turmeric	यह प्रोजेक्ट हमें बहुत ही मज़ा आया।	अच्छा
11	Hema	B.Sc 3 <sup>rd</sup> year	2022-23	Chrysanthemum	यह प्रोजेक्ट हमें बहुत ही मज़ा आया।	अच्छा
12	John Somanan	B.Sc 3 <sup>rd</sup> year	2022-23	Aprasita	यह प्रोजेक्ट हमें बहुत ही मज़ा आया।	अच्छा
13	Jaya Sahu	B.Sc 3 <sup>rd</sup> year	2022-23	Patharchatta	यह प्रोजेक्ट हमें बहुत ही मज़ा आया।	अच्छा
14	Jayna Sahu	B.Sc 3 <sup>rd</sup> year	2022-23	Amle	यह प्रोजेक्ट हमें बहुत ही मज़ा आया।	अच्छा
15	Jyotsna Suman	B.Sc 3 <sup>rd</sup> year	2022-23	Curry leaf	यह प्रोजेक्ट हमें बहुत ही मज़ा आया।	अच्छा
16	Kavita Sahu	B.Sc 3 <sup>rd</sup> year	2022-23	Patharchatta	यह प्रोजेक्ट हमें बहुत ही मज़ा आया।	अच्छा
17	Khushi					
18	Khushi Rakhe	B.Sc 3 <sup>rd</sup> year	2022-23	Patharchatta	यह प्रोजेक्ट हमें बहुत ही मज़ा आया।	अच्छा
19	Ku. Kajal Prasad	B.Sc 3 <sup>rd</sup> year	2022-23	Calicut	यह प्रोजेक्ट हमें बहुत ही मज़ा आया।	अच्छा
20	Khiteshwar	B.Sc 3 <sup>rd</sup> year	2022-23	Turmeric	It was beneficial project.	अच्छा
21	Lily Verma	B.Sc 3 <sup>rd</sup> year	2022-23	Patharchatta	It was a good project something diff.	अच्छा
22	Lipika	B.Sc 3 <sup>rd</sup> year	2022-23	Jasrajgarcha	It was very nice project.	अच्छा
23	Mamta Yadav	B.Sc 3 <sup>rd</sup> year	2022-23	Chrysanthemum	It was beneficial project.	अच्छा
24	Manisha	B.Sc 3 <sup>rd</sup> year	2022-23	Curry leaf	It was very nice project.	अच्छा
25	Makshima	B.Sc 3 <sup>rd</sup> year	2022-23	Patharchatta	It was very nice project.	अच्छा
26	Nutan	B.Sc 3 <sup>rd</sup> year	2022-23	Patharchatta	It was very nice project.	अच्छा
27	Nutan Kishor	B.Sc 3 <sup>rd</sup> year	2022-23	Turmeric	यह प्रोजेक्ट हमें बहुत ही मज़ा आया।	अच्छा
28	Nisha	B.Sc 3 <sup>rd</sup> year	2022-23	Amle	यह प्रोजेक्ट हमें बहुत ही मज़ा आया।	अच्छा
29	Normita	B.Sc 3 <sup>rd</sup> year	2022-23	Chrysanthemum	यह प्रोजेक्ट हमें बहुत ही मज़ा आया।	अच्छा
30	Nutan	B.Sc 3 <sup>rd</sup> year	2022-23	Meetha neem	It is very good project.	अच्छा





**Botanical name - *Withania Somnifera (L.) Dunal***  
**Common name - Ashwagandha**  
**Family - Solanaceae**  
**Morphology character**

- It is a dense, hairy, erect, grayish-brownish herb or undershrub, grows up to a height of 1.5 meter.
- All parts are covered with whitish, estate trichomes.
- Branching is extensive, leaves are simple, alternate or 2 opposite, ovate, entire, base cuneate, 10 cm long.
- The roots are stout, long tuberous, fleshy, whitish-brown.
- The flowers are greenish-yellow and found in few flowered clusters in axils, pedicels up to 4 mm long.
- Ovary and style are glabrous.

**Medicinal use -**

- Helps Fight Depression: Ashwagandha might prove useful in reducing depression levels.
- Treats Erectile Dysfunction: Ashwagandha is good for boosting the libido in men and can be used in the formulation of medicine for erectile dysfunction (ED).
- Lowers Cholesterol: Ashwagandha health benefits also include improving heart health by lowering cholesterol.
- Antibacterial Properties: Ashwagandha has proven antibacterial properties. Withania Somnifera helps to prevent bacterial infections.
- Boosts Immunity: Studies have shown that consumption of Ashwagandha helps boost immunity. Withania Somnifera also helps improve white blood cells & red blood cells.

SI. NO. -           
 SUBMITTED BY - Bhivani Bodi  
 FATHER'S NAME - Phulkhand Bodi  
 CLASS - B.Sc 2<sup>nd</sup> year 'MB'  
[https://en.m.wikipedia.org/wiki/Withania\\_Somnifera](https://en.m.wikipedia.org/wiki/Withania_Somnifera)




**Botanical name - *Ziziphus jamaicensis (L.)***  
**Common name - Patharchat**  
**Family - Apocynaceae**

**Morphological character**

- Ajwain is an erect, glabrous or minutely pubescent, branched annual herb, up to 90 cm tall.
- Ajwain is an erect, glabrous or minutely pubescent, branched annual herb, up to 90 cm tall.
- They have a bitter and pungent taste.
- The seeds are small, gray-green, Ajwain is a small, erect, annual shrub with soft fine hairs.
- The crop is grown in cold weather, both as a dry crop and under irrigation.
- Germination takes in 5-15 days, depending upon climatic conditions. First irrigation should be light.
- The fruits become ready for harvesting when the flower heads turn brown.
- 1.7-2.0 mm long; 1.5-2.4 mm broad, dirty yellow to yellowish brown in colour and half to two-thirds apical portion has slight purplish tinge.
- 1.7-2.0 mm long; 1.5-2.4 mm broad, dirty yellow to yellowish brown in colour and half to two-thirds apical portion has slight purplish tinge.

**Medicinal use**

- The plant water is distilled to cure disorders like flatulence, low appetite and indigestion.
- It acts as digestive tonic and effective to treat stomach and small intestine problems.
- The chemical present in the plant, shows effect on the calcium channels by blocking it.
- Uncontrolled blood pressure is a major risk factor for heart disease and stroke.
- Ajwain is used in traditional medicine for controlling high blood pressure.
- The active constituents in ajwain are extremely beneficial in maintaining the natural colour of hair and prevent further greying.

Submitted By - Deviika  
 Father's name - Ajeet Kumar  
 Serial number -           
 Class - B.Sc. II<sup>nd</sup> year bio  
 Site use - <https://en.m.wikipedia.org/wiki/Ajwain>




**Botanical Name - *Kalanchoe pinnata (Lam.) Pers.***  
**Common Name - Patharchat**  
**Family Name - Crassulaceae**

**Morphological Character:**

- These plant grows to about 3-6 feet tall.
- The leaves are usually bright green or light green in colour.
- They have numerous blunt teeth along their margins.
- It is a succulent, perennial plant, about 1 m (39 in) tall, with fleshy cylindrical stems and young growth of a reddish tinge, which can be found in flower throughout most of the year.
- At their margin, between the teeth, adventitious buds appear, which produce roots, stems and leaves.
- The ovary has four carpels, slightly fused together in the center, with slender styles in a yellowish color with red-purple streaks.
- The eight stamens, each about 4 cm (1.6 in) long, are in two whorls, fused on the corolla.

**Medicinal Uses -**

- One of the biggest benefits of Patharchatta is its ability to treat kidney stones.
- Patharchatta juice is very helpful for managing digestive problems including bloating, excessive gas, and acidity.
- It is also useful for proving relief from hypertension, respiratory troubles, and diabetes.
- Patharchatta is an excellent diuretic. The leaf extracts of the Patharchatta plant are given to patients who are suffering from bladder inflammation and urinary retention to promote urination.
- The leaves of Patharchatta plant have astringent properties that help to calm down redness.
- Patharchatta is an excellent herb for treating wounds, cuts, and ulcers.
- Applying the juice of the leaves externally in the affected area helps in arresting bleeding.

Submitted By - Deeksha Tiwari  
 Serial Number -           
 Father's Name - Vijay Kumar Tiwari  
 Class - B.Sc II<sup>nd</sup> Year Bio  
 Site Use - [https://en.m.wikipedia.org/wiki/Kalanchoe\\_pinnata](https://en.m.wikipedia.org/wiki/Kalanchoe_pinnata)




**Botanical name - *Prosopis Cineraria (L.) DUNAL***  
**Common name - Shami**  
**Family - Fabaceae**  
**Morphology character**

- Shami or White hutch is a medium-sized tree, with white-pubescent branches.
- Whitish bark, exfoliating in papery flakes, and marked at intervals by darker horizontal patches.
- Leaves are bipinnate, flowers are sessile, pale yellow to nearly white in protracted spikes, and fruits are flat, with a triangular beak at the apex, tapering at the base into a stalk.

**Medicinal use -**

- Different parts of the plant are used for different medicinal purposes. The astringent bark and heartwood are used in Ayurveda as a substitute for *Acacia catechu* to treat leprosy, pruritis, wounds, bronchial asthma and stomatitis.
- A decoction of the ground bark is used as a gargle to relieve sore throat and toothache, and the dried, powdered bark is applied externally to promote healing of ulcers. An infusion of the tender leaves is used as an astringent and remedy for diarrhoea and dysentery.
- The extract of leaves is used to kill intestinal parasitic worms. The pods are used in the treatment of uro-genital diseases. The seeds are reported to have a hypoglycaemic effect.
- Kuth is used to cure halitosis (bad odour from the mouth) as well as body odour.
- It helps manage stomach spasms due to its spasmolytic activity.
- The plant has a diuretic property that eliminates excess water from the body curing many kidney problems.

SI. NO. -           
 SUBMITTED BY - Monika Yadu  
 FATHER'S NAME - Suresh Yadu  
 CLASS - B.Sc 2<sup>nd</sup> year 'MB'  
[https://en.m.wikipedia.org/wiki/Prosopis\\_Cineraria](https://en.m.wikipedia.org/wiki/Prosopis_Cineraria)




**Botanical Name - *Mimosa pudica L.***  
**Common Name - Chai root**  
**Family - Fabaceae**

**Morphological Characters -**

- The plant is a spiky sub-shrub and grows to a height of about 0.5 m.
- The stems in young plants are bicucullar creeping or trailing with age. It can hang very long and becomes floppy.
- The stems is slender, branching, and sparsely to densely pubescent, growing to a length of 1.2 m (3.9 ft).
- The most height of *M. pudica* usually reaches around 10cm (3.9 in).
- The leaves are bipinnately compound, with one or two primary pairs, and 20-26 leaflets per pinna.
- The pinnae are also pinnate. Peduncles (stalks) pale pink or purple flower heads arise from the leaf axils in mid-summer with more and more flowers on the plant gets older.
- A single flower survives for less than a day, and usually dies completely by the next day. Flowers of *M. pudica* are very brittle and soft.
- The glumes on seed heads are 8-10mm (0.3-0.4 in) in diameter (including the stem).
- Chromocentrales: It is seen that the flower petals are red in their upper part and the stamens are pale to lavender. Petals are streaked with approximately 8 brownish dots.

**Medicinal Uses -**

- It is kept in a Cold and Dry place.
- Ligustrin herb is consumed for medicinal purposes.
- It purifies blood.
- It provides relief in Constipation.
- They heal each faster by dropping water on the old wounds.
- Improves Sports Cause
- White eye are Beneficial.
- It cures Rhegmatone tract that tracts, paralysis, honey suckle, and harmful bacteria, which is also known as powerful gas-washers.
- Ligustrin can be best utilized for treating mood disorders and improve the mental health of an individual. Therapists have special characteristics that kill parasites, act as an effective weapon against parasites, and treat harmful bacteria.
- Some researchers say that Ligustrin seeds are better than Ligustrin as a low-molecular-weighted protein.

Submitted By - Miss Rakhi Saha  
 Serial Numbers -           
 Father's Name - Mr. Pradeep Saha  
 Class - B.Sc. III<sup>rd</sup> Year Bio  
 Site Use - [https://en.m.wikipedia.org/wiki/Mimosa\\_pudica](https://en.m.wikipedia.org/wiki/Mimosa_pudica)




**Botanical Name - *Hydrocotyle vulgaris L.***  
**Common Name - Peppercorn**  
**Family - Araliaceae**

**Morphological Characters -**

- The plant has an umbella-like leaf and lives terrestrially in wet places such as marshes, meadows and swamps, sometimes even in deeper water.
- This small plant forms rosettes, up to 1 meter long, creeping rhizomes. The rosettes, rounded, shield-shaped leaves can have a diameter of up to 4 centimeters, but an other rosette.
- The approach of the long, hairy petioles is located in the middle of the leaf rosette.
- The leaves are fresh green, shiny shiny and show a clear, radially extending vein.
- Influence on whitefish, with the stems of the inflorescence about half as long as those of the leaves.
- The petals are greenish, white or reddish.
- The flowering period is from July to August.
- The fruits are flat, waxy and winged.
- It grows as a perennial herbaceous plant and only reaches a stature height of 3 to 20 centimeters. With a slight smell of coriander, it is edible.

**Medicinal Uses -**

- A valuable medicine for its diuretic properties.
- has long been used in India as an aperient or astringent tonic.
- useful in fever and bowel complaints and a good remedy for leprosy, rheumatism and skin diseases, employed as a poultice for syphilitic ulcers.
- It is small dose it acts as a stimulant.
- It is used for antimicrobial, analgesic, anti-inflammatory, antispasmodic and osmotic-enhancing properties.
- It is widely used as a dietary supplement in capsule, powder, extract and topical formulation.

Submitted By - Miss Nidhita Yadav  
 Serial Numbers -           
 Father's Name - Mr. Hemant Yadav  
 Class - B.Sc. III<sup>rd</sup> Year Bio  
 Site Use - [https://en.m.wikipedia.org/wiki/Hydrocotyle\\_vulgaris](https://en.m.wikipedia.org/wiki/Hydrocotyle_vulgaris)




Botanical Name - *Euphorbia tirucalli* L.

Common Name - *Firestick Cactus*.

Family - *Euphorbiaceae*.

Morphological Characters -

- Shrub, branches leathery, succulent, articulated.
- Leaves deciduous, 5-10mm long, linear-oblong, base cuneate, apex obtuse to subacute.
- Cynathia clustered in the fork of the branchlets, shortly pedicelled, mostly female.
- Involucre campanulate, glands 3-5, transversely oval, peltate, lobes short, hairy, appendage 0.
- Male flowers bracteolate, bracteoles lacinate at tip.
- Style short, recurved, 2-lobed.
- Capsule 5 mm, globose, cocci compressed, velvety, seed aoid, smooth.

Medicinal Uses -

- Little twigs of plant can be roast and chew for tender throat.
- Bark is used in treatment of fractures.
- In India, it is useful in treatment of biliousness, leprosy and leucorrhoea.
- In Brazil, it is used against cancers, cancer, sarcomas, tumours.
- A decoction of branches is used in gastralgia and colic. Ash is useful as caustic to release abscess.
- latex of *E tirucalli* is used for rheumatism, warts, cough, asthma, toothache, earache.
- milky juice used for cough, gonorrhoea, enlargement of spleen, stone in bladder, snake-bite. Root is used for infertility of women.
- wood useful against leprosy and foot paralysis subsequent to childbirth.
- Anti HIV anti-inflammatory, antiarthritic, anti bacterial and neurologic.

Submitted By - Jayshree (No.2 year bio)

Serial Numbers -

Father's Name - Mr. Rukim

Class - B.Sc. 2nd year (Bio)

Site Use -

<https://www.ajkajk.org/ajkajk/ajkajk>



Botanical Name - *Phyllanthus emblica* L.

Common Name - *Amla*

Family - *Phyllanthaceae*

Morphological Characters -

- The leaves are simple, subsessile and closely set along branchlets, light green, resembling pinnae leaves.
- The branchlets are not glabrous or finely pubescent, 10-20 cm (3.9-7.9 in) long, usually deciduous.
- The tree is small to medium in size, reaching 1-8 m (3.3-26.6 ft) in height.
- The flowers are greenish-yellow. The fruit is nearly spherical, light greenish-yellow, quite smooth and hard on appearance, with six vertical stripes or furrows.
- The fruit is up to 26 mm (1.0 in) in diameter, and, while the fruit of wild plants weigh approximately 5.5 g, cultivated fruits average 28.4 g to 56 g.
- The taste of Indian amla is sour, bitter and astringent, and it is quite fibrous.
- Ripening in autumn, the berries are harvested by hand after climbing to upper branches bearing the fruits.

Medicinal Uses -

- According to Ayurveda, amla fruit is sour (*amla*) and astringent (*ashayin*) in taste (*rasa*), with sweet (*mudra*), bitter (*tikta*) and pungent (*kata*) secondary tastes (*anusana*).
- All parts of the plant are used in various Ayurvedic medicine herbal preparations, including the fruit, seed, leaves, root, bark and flowers.
- In traditional Indian medicine, dried and fresh fruits of the plant are used.
- Commonly used in oils, shampoos and hair oils, the high tannin content of Indian gooseberry fruit serves as a mordant for fixing dyes in fabrics.
- Its qualities (*guna*) are light (*lagha*) and dry (*ruksha*), the postdigestive effect (*vipaka*) is sweet (*madhura*) and its energy (*virya*) is cooling (*shita*).
- In Ayurvedic polyherbal formulations, Indian gooseberry is a common sweet-taste, and most notably is the primary ingredient in an ancient herbal rasayana called *Chyawanprash*.

Submitted By - Miss Opasri Sahu

Serial Numbers -

Father's Name - Mr. Gopal Prasad Sahu

Class - B.Sc. II<sup>nd</sup> Year Bio

Site Use -

<https://www.ajkajk.org/ajkajk/ajkajk>



Botanical Name - *Phyllanthus emblica* L.

Common Name - *Amla*

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- In traditional Indian medicine, dried and fresh fruits of the plant are used.
- According to Ayurveda, amla fruit is sour (*amla*) and astringent (*ashayin*) in taste (*rasa*), with sweet (*mudra*), bitter (*tikta*) and pungent (*kata*) secondary tastes (*anusana*).
- Its qualities (*guna*) are light (*lagha*) and dry (*ruksha*), the postdigestive effect (*vipaka*) is sweet (*madhura*) and its energy (*virya*) is cooling (*shita*).
- Commonly used in oils, shampoos and hair oils, the high tannin content of Indian gooseberry fruit serves as a mordant for fixing dyes in fabrics.
- In Ayurvedic polyherbal formulations, Indian gooseberry is a common sweet-taste, and most notably is the primary ingredient in an ancient herbal rasayana called *Chyawanprash*.

Submitted By - Miss Pooja Ray

Serial Numbers -

Father's Name - Mr. Subodh Ray

Class - B.Sc. II<sup>nd</sup> Year Microbiology

Site Use -

<https://www.ajkajk.org/ajkajk/ajkajk>



Botanical Name - *Scaevola taccada* L.

Common Name - *Chironia*

Family - *Scrophulariaceae*

Morphological Characters -

- Influence is a large leafy plant. Flowers are numerous, greenish-yellow, and stamens with purple filaments of stamens. *Fraxinea* sometimes considered part of this genus, sometimes as a separate genus, and sometimes as *apocynifera*.
- *Scaevola* is a genus in the gongylid family containing plants sometimes referred to as the *diverters*.
- Some species bear very showy purple and blue flowers. Many members of this genus have medicinal and culinary purposes.
- *Chironia* is an erect, annual, branched herb, up to 1.5 m high.
- Stem is robust and cylindrical below, but four-angled upwards.
- Leaves are broadly lanceolate, opposite, sessile, about 10 cm long, acute at tip, and five-nerved.
- Sepals and petals are four in number.
- Each petal tube has a pair of green, honey-secreting glands.
- Capsules are ribbed, erect, about 6 mm in diameter, and sharp pointed.
- Seeds are smooth and many angled.

Medicinal Uses -

- *Scaevola* is used in Indian Ayurvedic Herbal System to cure Fever as in *Laghu sandarbata-charna*, *Maha sandarbata Charna* and in Tibetan folk medicine.
- *Scaevola taccada* is a bitter tonic, carminative, laxative, anti-gonorrheal, anti-periodic, anti-inflammatory, astringent, and anti-haemorrhagic.
- It is used in treating piles, skin diseases, ulcers, and diabetes.
- It is also used against malaria and liver disorder.
- If taken with sandal wood paste, it stops internal haemorrhage of stomach.
- It is ingredients of Ayurvedic preparation "Sakarshani Powder" Used in chronic fever.
- It is a remedy for steady urine and also used in epilepsy.

Submitted By - Miss Yogita Mahabe

Serial Numbers -

Father's Name - Mr. Shiv Kumar Mahabe

Class - B.Sc. II<sup>nd</sup> Year IIMB

Site Use -

<https://www.ajkajk.org/ajkajk/ajkajk>



Botanical Name - *Morinda tomentosa* (L.) Spreng

Common Name - *Carry Tree*

Family - *Rubiaceae*

Morphological Characters -

- The plant produces small white flowers which can self-pollinate to produce small black-black drupe containing a single large viable seed. The berry pulp is edible, with a sweet taste.
- The plant is also sometimes called *river rose*, though it belongs to a different family to most *Androschloa indica*, which is in the related family *Urticaceae*.
- Its leaves, known as *carry leaves*, are used in many dishes in the Indian subcontinent.
- It is a small tree, growing 4-6 metres tall, with a trunk up to 40 cm (16 in) diameter. The aromatic leaves are greenish, with 11-23 leaflets, each leaflet 2-4 cm long and 1-2 cm broad.
- The carry tree, *Morinda tomentosa* (L.) Spreng, is a tropical and sub-tropical tree in the family *Rubiaceae* (the rose family, which includes rose, citrus, and sandalwood), native to Asia.
- The tree is native to the Indian subcontinent.
- Commercial plantations have been established in India, and more recently Australia.
- It grows best in well-drained soil that does not dry out, or areas with full sun or partial shade, preferably away from the wind. Growth is more robust when temperatures are at least 18 °C (64 °F).

Medicinal Uses -

- In Cambodia, where the leaves are called *chok krompong*, the leaves are roasted and used as an ingredient in a soup, *nuok chhom*. In Java, the leaves are often steamed to flavor *gado-gado*.
- Though available about the entire world, there is greatly inferior. The oil can be extracted and used to make scented soap.
- The fresh leaves are an indispensable part of Indian cuisine and Indian medicinal medicines.
- They are most widely used in southern and west coast Indian cooking, usually fried along with vegetable oil, crushed seeds and chopped onions in the first stage of the preparation.
- They are also used to make flower, veda, roses, and bath; additionally, they are often dyed (and then ground) in the preparation of various powdered spices (*masala*), such as South Indian *masala masala*, the main ingredient in the ubiquitous vegetable *stew sambhar*.

Submitted By - Miss Monika Vishwakarma

Serial Numbers -

Father's Name - Mr. Deen Kumar Vishwakarma

Class - B.Sc. II<sup>nd</sup> Year IIMB

Site Use -

<https://www.ajkajk.org/ajkajk/ajkajk>



Botanical Name - *Opuntia basilaris* (var. *viridis*)

Common Name - *Prickly Pear*

Family - *Cactaceae*

Morphological Characters -

- *O. basilaris* is a large, trunk-forming, segmented cactus that may grow to 5-7 metres (16-23 feet) with a crown of over 1 m (10 ft) in diameter and a trunk diameter of 1 m (1 yard).
- Cladodes (large pads) are green to blue-green, bearing few spines up to 2.5 centimetres (1 inch) or may be spineless.
- Prickly pears typically grow with flat, rounded cladodes (spine called *phyllocladia*) containing large, smooth, flat spine and small, hairlike prickles called *glochids* that readily adhere to skin or hair, then detach from the plant.
- The flowers are typically large, solitary, bisexual, and epigeal, with a perianth consisting of distinct, spirally arranged sepals and a hypophan.
- The stamens are numerous and in spiral or whorled clusters, and the gynoecium has numerous inferior ovaries per carpel. Placentation is parietal, and the fruit is a berry with aril-like seeds.
- Prickly pear species can vary greatly in habit, most are shrubs, but some, such as *Opuntia polyacantha* of the Galapagos, are trees.

Medicinal Uses -

- Prickly pear cactus might lower blood sugar and cholesterol levels by reducing how much the stomach absorbs.
- People most commonly use prickly pear cactus for diabetes.
- It is also used for enlarged prostate, hangover, high cholesterol, and many other purposes, but there is no good scientific evidence to support these uses.
- Prickly pear has been investigated for antioxidant, hypocholesterolemic, and anti-inflammatory, as well as other pharmacologic effects.
- They are used to treat sores, kidney stones, burns, and urinary tract inflammation.
- they would drink it to treat hepatitis.
- It's also tested for its antiviral and anti-inflammatory properties.
- They are rich in vitamins and calcium.

Submitted By - Miss Rashmi Kulkarni

Serial Numbers -

Father's Name - Mr. Namdhal Kulkarni

Class - B.Sc. II<sup>nd</sup> Year Biology

Site Use -

<https://www.ajkajk.org/ajkajk/ajkajk>





Botanical Name – Cathartus ruscus (L.) G. Don

Common Name – Salsabhar

Family – Apocynaceae

**Morphological Characters –**

- The stems of *Cathartus ruscus* from the Greek for "spur flowers" have a simple, cordate, opposite, ex-stipulate, petiolate, elliptic ovate to oblong, 4-10 by 2-4 cm glabrous to pubescent, base acute or obtuse, apex obtusely apiculate and lateral nerves 10-12 pairs.
- Petiole is 1.0-1.5 cm long.
- *Cathartus ruscus* is a perennial small herb or sub-shrub, up to 90 cm in height.
- Stems are erect, less branching, with flexible long branches, purple or light green.
- Stems are endemic to Madagascar, though now *C. ruscus* is widely introduced around the world.
- The plant produces about 130 of these compounds, including verbascoside and vincosidine, two drugs used to treat cancer.
- These are perennial herbs with opposite or almost oppositely arranged leaves. Flowers are usually solitary in the leaf axils, each has a style with five long, narrow lobes and a corolla with a tubular throat and five lobes.
- *Cathartus ruscus*, known formerly as *Erica ruscus*, is a small member of the myrtaceae, now sometimes called *Cathartus ruscus*.

**Medicinal Uses –**

- Salsabhar is an effective ayurvedic remedy for all sorts of Kapha aggravating disorders.
- Salsabhar acts as a natural antihypertensive agent which normalizes the blood pressure levels and keeps it under check. It holds high significance in hypertension conditions.
- Salsabhar is a potent traditional remedy to increase the functioning of the brain. The powerful antioxidant and flavonoid present in it improve the memory capacity, concentration, softness, focus, and alertness of an individual. It is used in cancer and diabetes; root pain is used to apply wounds.
- Plant contains hypotensive, sedative and antitoxic activities.
- Plant is used in cancer and diabetes; root paste is used to apply wounds; root decoction is used in fever; leaves are used to increase milk and juice is used to treat dysentery.
- The decoction of leaf is used for babies in gripping pain while the latex is useful in scabies.
- Plant contains hypotensive, sedative and antitoxic activities.

Submitted By – Miss Anshika Tiwari

Serial Numbers –

Father's Name – Mr. Sandeep Kumar

Class – B.Sc. II<sup>nd</sup> Year 1809

Site Use – [https://en.wikipedia.org/wiki/Cathartus\\_ruscus](https://en.wikipedia.org/wiki/Cathartus_ruscus)



Botanical Name – *Rhynchospora* (L.) Persall

Common Name – Bahari

Family – Phragmaceae

**Morphological Characters –**

- *Rhynchospora* is a non-aromatic herb.
- The leaves of this plant are succulent, oblong, and 4-6 mm (0.16-0.24 in) thick.
- Leaves are obtusely acute and are arranged oppositely on the stem.
- The flowers are small, actinomorphic and white, with four to five petals.
- It can even grow in slightly brackish conditions. Propagation is often achieved through cuttings.
- *Rhynchospora* is a succulent, glabrous, creeping herb, with rooting at nodes.
- The plant is easily recognized by its spreading habit, succulent and fleshy leaves, and light bluish, purple or white flowers.
- Leaves are ovate and opposite with dotted lower surface.

**Medicinal Uses –**

- With the growing age brain degeneration occurs and *Brahmi* is best brain tonic.
- The active compound bacosides works wonderfully on the brain health. *Brahmi* is used to influence brain cells by promoting the regeneration of cells of brain.
- It shows antioxidant results against the rapid degeneration of brain cells due to Alzheimer's disease.
- Brain is not the only organ for which *Brahmi* is effective, it works equally for better liver health.
- Liver helps in detoxification of body and *Brahmi* is very essential herb for encouraging liver functions.
- Every day we are taking numerous toxins in our diet and inhaling from environment.
- This herb is safe and natural compound that removes toxins and promotes proper liver functioning.
- *Brahmi* is also used to maintain normal blood pressure in our body.
- It increases the utilization of nitric acid and normal vascular muscle functions.

Submitted By – Miss Pooja Malik

Serial Numbers –

Father's Name – Mr. Pradeep Malik

Class – B.Sc. II<sup>nd</sup> Year Biology

Site Use – <https://en.wikipedia.org/wiki/Rhynchospora>



Botanical Name – *Zingiber officinale*, Roscoe

Common Name – Ginger

Family – Zingiberaceae

**Morphological Characters –**

- It is a herbaceous perennial plant that grows up to 1 meter high.
- The leaves grow in an alternate manner and are long and elongated in shape.
- It produces white and pink clusters of flowers that grow into yellow flowers as maturity.
- The flowers are arranged in a cone-like spike that is covered with overlapping green bracts.
- It is a monocotyledonous plant.
- The underground stem modification forms into a rhizome that is widely used as a spice.
- The rhizome is partially branched and bears leafy shoots. The leafy shoots are pseudostems formed from the leafy sheaths and bear 8-12 distinct leaves.
- The inflorescence arises directly from the rhizome.

**Medicinal Uses –**

- Ginger rhizome is a rich source of zingiberone,  $\alpha$ -zingerone, gingerols, and shogaols.
- These phytochemical components give it antispasmodic, anti-inflammatory, antitumor and antiplatelet properties.
- Ginger may have anti-bacterial, anti-fungal and anti-viral activities. The growth inhibition of various microbes may be attributed to biological mechanisms, including the suppression of the biofilm formation that is integral to antimicrobial resistance.
- The heat-labile activities of ginger against cardiovascular disease like stroke and coronary heart disease may have been demonstrated.
- Ginger may be effective in managing migration and the associated symptoms of headache and nausea.
- Ginger may have shown an efficacy in the management of nausea and vomiting during pregnancy as well as chemotherapy-induced nausea and vomiting.
- The phenolic compounds of ginger may have demonstrated the liver-protective effect in terms of reducing overall liver functioning.
- Ginger might have displayed significant efficacy in reducing primary pain.

Submitted By – Miss Lina Sahani

Serial Numbers –

Father's Name – Mr. Shivanshu Sahani

Class – B.Sc. II<sup>nd</sup> Year Biology

Site Use – [https://en.wikipedia.org/wiki/Zingiber\\_officinale](https://en.wikipedia.org/wiki/Zingiber_officinale)



Botanical Name – *Origanum majorana* L.

Common Name – Marjoram, Dhusa

Family – Lamiaceae

**Morphological Characters –**

- Marjoram is an herb.
- Botanically, marjoram is a member of Lamiaceae family, in the genus, *Origanum*.
- The Lamiaceae family also includes some of the commonly known herbs and spices such as ekin dill, anise, fennel, cumin, etc.
- Marjoram is a bushy herbaceous plant that typically reaches 30-60 cm (1-2 feet) in height.
- The square branching stems are densely covered with hairy ovate leaves, arranged oppositely in pairs.
- The pale two-lipped flowers are not particularly showy and are borne in small spike-like clusters.
- Morphology – Leaves are smooth, simple, petiolated, ovate to oblong-ovate, 0.5-1.5 cm (0.2-0.6 inches) long, 0.2-0.8 cm (0.1-0.3 inches) wide.
- The texture of the leaf is extremely smooth due to the presence of numerous hairs.

**Medicinal uses –**

- People make medicine from the flowers, leaves, and oil.
- Marjoram is commonly used for runny nose, cough, common cold, other infections, and various digestion problems.
- Marjoram herb and oil are used in flavorings.
- Ascorbic acid also has immune booster, wound healing, and anti-viral effects.
- Fresh herb has high levels of vitamin C (ascorbic acid).
- Marjoram is generally not toxic, but should not be used by pregnant or lactating women.
- Dhusa is also used in traditional Ayurvedic medicine to help reduce symptoms associated with wounds, intestinal worms and diabetes, and also has antiviral properties.

Submitted By – Miss Dolly Verma

Serial Numbers –

Father's Name – Mr. K.P. Varma

Class – B.Sc. II<sup>nd</sup> Year (Biology)

Site use – <https://en.wikipedia.org/wiki/Marjoram>



Botanical Name – *Carica papaya* L.

Common Name – Papaya

Family – Caricaceae

**Morphological Characters –**

- It originated from Central America and is now grown in all tropical countries and many subtropical regions of the world.
- It lives for about 3-10 years, and normally grows with a single unbranched trunk.
- The leaves are palmately-lobed, up to 75 cm across, in long, hollow petioles.
- The blades are divided into five to nine main segments, bearing prominent yellowish ribs and veins.
- The flowers are born on inflorescences which appear in the axils of the leaves.
- Generally, the fruit is melon-like, round or long, and may contain more than 1000 seeds.
- The skin is smooth and green, but turns yellow or orange.

**Medicinal Uses –**

- Papaya increases appetite and strength.
- Keeps the liver disease free and gives relief from diseases like jaundice.
- Papaya is rich in fiber which helps in lowering cholesterol.
- Papaya used for weight loss.
- The medicinal properties found in papaya are beneficial for eye protection.
- Relieves pain during periods.
- Useful in boosting immunity.
- Consumption of papaya protects against heart diseases.
- Arthritic patients should consume papaya, papaya is useful for that.

Submitted By – Miss Rizwana Parveen

Serial Numbers –

Father's Name – Mr. Armaan Khan

Class – B.Sc. II<sup>nd</sup> Year Biology

Site Use – <https://www.livestrong.com/article/66166/>



Botanical Name – *Musa paradisiaca*

Common Name – Banana

Family – Musaceae

**Morphological Characters –**

- The banana is a tree-like perennial herb. It is an herb.
- It is an herb because it does not have woody tissues and the fruit-bearing stem dies down after the growing season.
- It is a perennial because suckers, shoots arising from lateral buds on the rhizome, take over and develop into fruit-bearing stems.
- This is the stem of a banana plant. You can tell it is the stem because the sprout is growing vertically from a singular node.
- Sucker or "daughter" plant growing horizontally from rhizome.
- Female flowers emerging from inflorescence and developing fruit.
- Close up of an banana inflorescence. The "bud" or pro-fruit buds make the male organ.

**Medicinal Uses –**

- Low levels of potassium in the blood (hypokalemia), constipation, and diarrhea.
- Banana leaves have been used conventionally as wound dressing material in India as part of an ancient medical practice.
- Banana is a healthy source of fiber, potassium, vitamin B6, vitamin C, and various antioxidants and phytonutrients.
- Banana is great for your skin as well as your overall health.
- But you might not know that a banana a day keeps high blood pressure at bay.
- The more potassium you eat, the more sodium your body gets rid of.
- Enjoy bananas during your periods and keep those period problems at bay.

Submitted By – Miss Khanbha Verma

Serial Numbers –

Father's Name – Mr. Jeevan Verma

Class – B.Sc. II<sup>nd</sup> Year Biology

Site Use – <https://en.wikipedia.org/wiki/Banana>













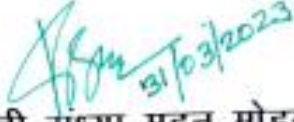






प्रमाण पत्र

प्रमाणित किया जाता है कि महाविद्यालय उद्यान के रख रखाव एवं ग्रीन ऑडिट के व्यय हेतु सत्र 2022-23 में बजट प्रावधान राशि 40000/- थी जिसमें कुल 25985/- रू.व्यय हुए।

  
डॉ.श्रीमती संध्या मदन मोहन  
प्राचार्या  
भिलाई महिला महाविद्यालय

**Green Audit**

**Certificate**

This is to certify that the Bhilai Mahila Mahavidyalaya, Bhilai has conducted Green Audit of session 2022-2023 to assess the green initiative, planning, efforts, activities implemented in the college campus like plantation, cleaning of campus, and different Environment Awareness Activities.

During this period the baseline data was prepared by the internal green team of Bhilai Mahila Mahavidyalaya, Bhilai.

The activities and measures carried out by the college have been verified and were found to be satisfactory. The efforts taken by the management, Faculty and students towards environment and sustainability are highly appreciated.

Place -Bhilai

Date- 30.04.2023

*Meenakshi*

Dr. Meenakshi Bhardwaj

Assistant Professor

Indira Gandhi Government P.G., College,

Vaishali, Nagar, Bhilai, Chhatisgarh

External Auditor

*Pandey*  
30.04.23

Dr. Pratiksha Pandey

HOD, Botany

Bhilai Mahila Mahavidyalaya, Bhilai

*S.G. Bhatnagar*

Dr. S.G. Bhatnagar

IQAC, Coordinator

Coordinator

IQAC

Bhilai Mahila Mahavidyalaya  
Hospital Sector, Bhilai Nagar

*Chandrol*

Dr. Gurwant Chandrol

HOD, Botany

Kalyan Engineering College,

Bhilai Nagar, Chhatisgarh

External Auditor

*Chauhan*  
30.04.23

Dr. Deepa Chauhan

Assistant Professor, Botany

Bhilai Mahila Mahavidyalaya, Bhilai

*Sandhya Mohan*  
30/4/23

Dr. Sandhya Mohan

Principal

Principal

Bhilai Mahila Mahavidyalaya  
Hospital Sector, Bhilai, Durg (C.G.)

## Certificate

This is to certify that **Bhilai Mahila Mahavidyalaya ,Bhilai** College has conducted Environmental Green Audit of their campus and has submitted necessary data. The activities and measures carried out by the college have been verified based on the report submitted and was found to be satisfactory for the session 2022-2023. The efforts taken by the institute towards Green environment and its sustainability is highly appreciated and commendable.


There is no payment given by the institute for this purpose.

**Place- Bhilai Mahila Mahavidyalaya ,Bhilai**

**Date- 30.04.2023**

  
Dr. Meenakshi Bhardwaj  
Assistant Professor  
Indira Gandhi Government P.G., College,  
Vaishali, Nagar, Bhilai, Chhattisgarh

**External Auditor**

  
Dr. Gurwant Chandrol  
HOD, Botany  
Kalyan Postgraduate College,  
Bhilai Nagar, Chhattisgarh

**External Auditor**  
HEAD  
Botany & Microbiology  
Kalyan P.G. College, Bhilai Nagar (C.G.)

## Certificate of Appreciation

This certificate is awarded to

**Bhilai Mahilai Mahavidyalaya, Hospital  
sector, Bhilai**

For outstanding performance and lasting contribution  
to

*Green Audit*

*Session 2022-2023*



Awarded by

Dr. Gunwant Chandrol  
SOD, Botany  
Kalyan Postgraduate College,  
Bhilai Nagar, Chhattisgarh  
External Auditor

Date

30.04.2023

## Certificate of Appreciation

This certificate is awarded to

**Bhilai Mahilai Mahavidyalaya, Hospital  
sector, Bhilai**

For outstanding performance and lasting contribution  
to

*Green Audit*

*Session 2022-2023*

*Meenakshi*

Awarded by

Dr. Meenakshi Sharda

Date

30.04.2023

Assistant Professor

Indira Gandhi Government P.G. College,

Vaishali, Nagar, Bhilai, Chhattisgarh