

GREEN AUDIT REPORT YEAR 2024-25



Govt .P.G. COLLEGE KHARGONE,

BISTON ROAD KHARGONE, MADHYA PRADESH, PINCODE-451001

CONDUCTED BY:

SABS ENERGY ENVIRO PVT. LTD.

WE BUILDS A SOLID FOUNDATION FOR SAVING ENERGY

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2	IQAC Coordinator	Dr. Vandana Barve

Acknowledgement

Sabs Energy Enviro Pvt. Ltd. is thankful to the Govt. P.G. College Khargone (M.P.) for their positive support in undertaking this intricate task of Green Audit. The field studies would not have been completed on time without their interaction and timely support. We are grateful for their co-operation during field studies and provision of data for the study. The field study of this audit was carried out on 24-25.

The officials of Govt. P.G. College Khargone (M.P.) coordinated and helped to the audit team during the field study and measurement. Sabs Energy Enviro Pvt. Ltd. expresses special thanks to the following persons of Govt. P.G. College Khargone (M.P.)

Internal Audit Team		
1	Principal	Dr. G.S. Chouhan
2	IQAC & NAAC Coordinator	Dr. Vandana Barve

And all other officers, technicians and staffs for the keen interest shown in this study and the courtesy extended.

We are thankful to the management for giving us the opportunity to be involved in this very interesting and challenging project.

We would be happy to provide any further clarifications, if required, to facilitate implementation of the recommendations.

SABS ENERGY ENVIRO PVT. LTD.

Mr. Sanjay Singh

A P: Indian Green Building Council Green Building Consultant

EA 1462 Bureau of Energy Efficiency

Ministry of Power Govt. of India

GREEN AUDIT Certificate



This is to certify that Govt. P.G. College Khargone (M.P.) has conducted, Green Audit in the academic year 2024 - 2025 to assess the environmental initiative planning, efforts, activities, implemented in the college campus like Plantation, Rain Water Harvesting, Plastic ban, Conservation of Energy, Energy Management and various Green Awareness activities. **Sabs Energy Enviro Pvt. Ltd.** has verified campus data of Govt. P.G. College Khargone (M.P.) This Green Audit are also aimed to assess impact of environmental development initiatives for maintenance of the campus eco-friendly.

Mr. Sanjay Singh

A P: Indian Green Building Council Green Building Consultant
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Save Energy save Nation



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CHAPTER: 1

ABOUT THE COLLEGE

Govt. P.G. College Khargone Began its journey with faculties of Science, Arts and Commerce on a dynamic path of progress in 1958 in Devi Ahilya Higher Secondary School Khargone (M.P.). It was shifted in the present campus in 1967-68. It is a district with notable tribal population and generally known as a tribal distinct deprived of modern transport and conveyance facilities i.e. railways and airways. In spite of all these disparities, it is one of the largest co-ed colleges of the state. The college has a huge campus sprawling over an area of 11 acres with constructed area of 3625.93 square meters. It caters to the needs of higher/advanced academic knowledge with programs in Science, Arts and Commerce. The campus is a confluence of teachers with variety of skills and experiences in diverse fields offering students.

Goals & Objective:

- To develop new academic courses and revise current academic programmes to keep pace with the changing scenario.
- To vocationalize courses.
- To enhance and promote excellence in teaching and learning.
- To encourage and support innovation in teaching and learning.
- To develop a systematic approach for the success of students.
- To create an ICT infrastructure that is supportive of academic and administrative needs.
- To promote computer competency for students and faculty and staff.
- To provide supportive services to students.
- To increase awareness of student support services, policies and campus events among students.
- To maintain an administrative information system that is useful integrated and user friendly.
- To promote communication, cooperation and shared decision making among administrative and academic departments.
- To support and encourage staff for personal academic growth.
- To Support & encourage students for co-curricular activities.
- To provide a clean accessible environment, this meets the needs of student's faculty and staff.
- To promote a spirit of community service among students, faculty and staff.
- To ensure and sustain the institutional standards to highest level.
- The goals and objectives are communicated to students and parents by following means
- The mission and vision statements are printed in prospectus.
- At the time of counseling for admission these are explained to parents.

1.1 Audit Framework

The rapid urbanization and economic development at local, regional and global level has led to several environmental and ecological crises. On this background it becomes essential to adopt the system of the Green Campus for the institute which will lead for sustainable development Green Audit is a planned identification, data analysis and reporting of mechanisms of environmental diversity. The "Green Audit" aims to analyze environmental practices within and outside the college campus, which will have an impact on the eco- friendly environment.

1.2 Objective of the Green Audit

The institute, with the advice of the External Quality Assessment Cell (IQAC) has set up an environmental quality assessment Team that aimed at performing the green audit of the College. The main objectives of the audit are:

- To fulfill the Institution's responsibility towards reducing carbon footprint and contribute to environmental protection.
- To promote Environmental Consciousness and Responsibility among students.
- To implement green practices consistently and effectively towards creating a sustainable campus.
- To monitor and evaluate the green practices, towards a sustainable campus
- To generate innovative green practices, promoting the spirit of eco-innovation among students.

1.3 Methodology

The Green Audit taken up by Govt. P.G. College Khargone, Madhya Pradesh has been divided into three stages:

- Data/Observation
- Analysis of finding
- Recommendations

1.4 Division of Audit

For better investigation and pinpoint observation our team has divided this work in 6 parts

The college has adopted the 'Green Campus' system for environmental conservation and sustainability. There are main three pillars i.e. zero environmental foot print, positive impact on occupant health and performance and 100% graduates demonstrating environmental literacy. The goal is to reduce CO2 emission, energy and water use, while creating atmosphere where students can learn and be healthy

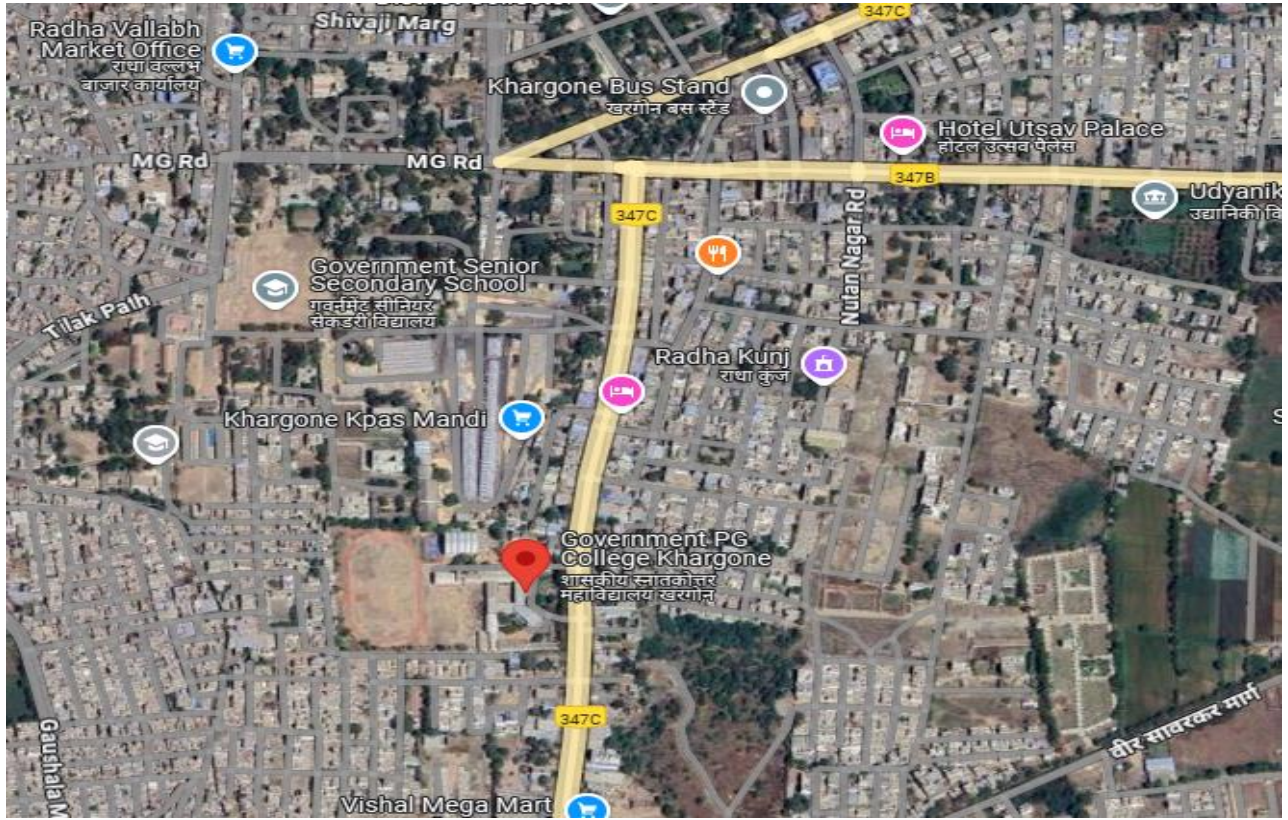


Figure 1. Layout View of Govt. P.G. College, Khargone, Madhya Pradesh

CHAPTER - 2

GENERAL OVERVIEW OF THE CONCEPT OF LAND USE

2.1 Introduction

Land use refers to man's activities and the various uses which are carried on and derived from land. Viewing the earth from space, it is now very crucial in man's activities on natural resource. In situations of rapid changes in land use, observations of the Earth from space give the information of human activities and utilization of the landscape.

Remote sensing and GIS techniques are now providing new tools for advanced land use mapping and planning. The collection of remotely sensed data facilitates the synoptic analyses of earth system, functions, patterning, and change in the local, regional as well as at global scales over time. Satellite imagery particularly is a valuable tool for generating land use map.



Figure 2. Govt. P.G. College Khargone, Madhya Pradesh Satellite View

2.2 Methodology Adopted for Land Use Mapping

Three types of data that are GPS points, field survey data and Google earth data for Geo referencing have been used in this study. Land use map of the study area have been prepared using the above three types of data with the help of ArcGIS Pro software.

2.3 Data Processing and Analysis

Land use map preparation is executed through the following steps:

Acquisition of data, Geo-coding and Geo referencing of satellite imageries by extracting the ground control points. Supervised classification was carried out with the aid of ground truth data collected during field survey. Scanning and digitization of maps and editing of all the Geo referenced maps were done using GIS. Data manipulation and analysis and linking the spatial data with the attribute data for creation of topology was carried out using GIS software. Creation of GIS output in the form of land use map showing various land use have been prepared.

Therefore, attempt has been made in this study to map land use for Geography Department of with a view to detect the land consumption in the built-up land area using both remote sensing and GIS techniques.

2.4 Geographical Location with Campus Map in Scale

The college has as **prawling pollution-free campus spread over the** land in the heart of



District. It has an ideal geographical location with the approximately to the important cities of the region The college is located at 1 km from Khargone Bus Station. Scaled image of college campus is shown. Green color in Map is representing green area. The Google aerial view of College Campus has been shown in figure. [Data Processing and Analysis](#)

Land use map preparation is executed through the following steps:

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CHAPTER - 3

TREE DIVERSITY OF COLLEGE CAMPUS

3.1 Objective:

The main objective of green audit is to enlist and enumerate the plant diversity of college campus. This is a continuous process and helps in maintenance and conservation of flora of campus.

This study was undertaken with following objectives –

- (a) To identify the plant species growing in the area.
- (b) To make a habit wise list along with their frequency.
- (c) To generate basic data for further reference.
- (d) To create awareness among students.

3.2 Methodology

Photo diversity of campus was studied by the investigative team. It was divided into parts. Different team visited these areas and noted name and number of plant species. This data was then cumulated and tabled.

3.3 Presentation of Data

The data was categorized on the basis of habits. Grasses and sedges were innumerable so their names were mentioned. In addition to angiospermic plants, other groups were also represented for eg. fungi, Pteridophyta (Pteris), gymnosperms (Cycas, Juniperus, Araucaria, Thuja)

3.4 Result

This campus harbors a rich diversity of plants. It is an old institution \ and hence some members of natural vegetation are still present here. Some plants are introduced for avenue purpose and are combined to the road facing area. **Campus area is having more than 120 different variety of plants, & more than 1200 plants /trees in the campus.**

Table 1. List of Tree

S. No.	Scientific Name	Vernacular Name	Family	Number
1	<i>Abroma augusta</i>	उलटकंबल	Sterculiaceae	5
2	<i>Acacia catechu</i>	खैर	Mimosaceae	10
3	<i>Adansonia digitata</i>	खुरासानी इमली	Malvaceae	15
4	<i>Aegle marmelos</i>	बिलपत्र	Rutaceae	15
5	<i>Alangium salvifolium</i>	अंकेल ,अंकोल	Alangiaceae	5
6	<i>Albizia lebbek</i>	शिरीष	Mimosaceae	20
7	<i>Allamanda sp.</i>	अल्मांडा	Apocynaceae	20
8	<i>Alstonia scholaris</i>	सप्तपर्णी	Apocynaceae	15
9	<i>Artocarpus heterophyllus</i>	कटहल देशी	Moraceae	15
10	<i>Bauhinia racemosa</i>	अस्तरा	Caesalpinaceae	15
11	<i>Bauhinia variegata</i>	कचनार	Caesalpinaceae	20
12	<i>Boswellia serrata</i>	सलई	Burseraceae	10
13	<i>Buchanania lanzan</i>	चारोली	Anacardiaceae	10
14	<i>Butea monosperma</i>	पलाश	Fabaceae	10
15	<i>Careya arborea</i>	कुंभी	Lecythidaceae	5
16	<i>Cassia fistula</i>	अमलताश	Caesalpinaceae	15
17	<i>Casuarina equisetifolia</i>	केज्युराइना	Casuarinaceae	15
18	<i>Ceiba pentandra</i>	कपोक	Bombacaceae	15
19	<i>Cocos nucifera</i>	नारियल	Arecaceae	25
20	<i>Commiphora wightii</i>	गुग्गल	Burseraceae	10
21	<i>Conocarpus erectus</i>	कोनोकर्पस	Combretaceae	20
22	<i>Crateva adansonii subsp. odora</i>	वरुण	Capparaceae	20
23	<i>Cycas revoluta</i>	साईकस	Cycadaceae	20
24	<i>Dalbergia sissoo</i>	शीसम	Papilionaceae	20
25	<i>Delonix regia</i>	गुलमोहर	Caesalpinaceae	20
26	<i>Dolichandrone falcata</i>	मोरसिंध	Bignoniaceae	15
27	<i>Dyopsis sp.</i>	अरेका पाम	Arecaceae	20
28	<i>Erythrina sp.</i>	गधापलाश	Papilionaceae	15

S. No.	Scientific Name	Vernacular Name	Family	Number
29	<i>Ficus benjamina</i>	ब्लैक फाईकस	Moraceae	15
30	<i>Ficus racemosa</i>	गुलर	Moraceae	15
31	<i>Firmiana colorata</i>	कुंआरीन	Sterculiaceae	10
32	<i>Gliricidia sepium</i>	ग्लिसरेडिया	Papilionaceae	15
33	<i>Gmelina arborea</i>	खमेर	Verbenaceae	5
34	<i>Grevillea robusta</i>	सिल्वर ऑक	Proteaceae	10
35	<i>Grewia subinaequalis</i>	फालसा	Tiliaceae	15
36	<i>Hevea brasiliensis</i>	रबर	Euphorbiaceae	9
37	<i>Holoptelea integrifolia</i>	चिरोल	Ulmaceae	20
38	<i>Hyophorbe lagenicaulis</i>	बाटल पाम	Arecaceae	10
39	<i>Kydia calycina</i>	बारंगा	Malvaceae	10
40	<i>Limonia acidissima</i>	कबीट	Rutaceae	10
41	<i>Litsea glutinosa</i>	मैदा	Lauraceae	10
42	<i>Manilkara hexandra</i>	खिरनी	Sapotaceae	10
43	<i>Melaleuca viminalis</i>	बाटल ब्रश	Myrtaceae	20
44	<i>Mimusops elengi</i>	मौलश्री	Sapotaceae	15
45	<i>Murraya paniculata</i>	मधुकामिनी	Rutaceae	15
46	<i>Neolamarckia cadamba</i>	कदम्ब	Rubiaceae	10
47	<i>Nyctanthes arbor-tristis</i>	पारिजात	Oleaceae	10
48	<i>Oroxylum indicum</i>	सोनपाठा	Bignoniaceae	15
49	<i>Phyllanthus emblica</i>	आंवला	Phyllanthaceae	15
50	<i>Piper longum</i>	पिपली	Piperaceae	10
51	<i>Pithecellobium dulce</i>	विलायती इमली	Mimosaceae	15
52	<i>Pongamia pinnata</i>	करंज	Papilionaceae	20
53	<i>Prosopis cineraria</i>	शमी	Mimosaceae	20
54	<i>Pterocarpus Marsupium</i>	बीजा	Papilionaceae	15
55	<i>Pterospermum acerifolium</i>	कनक चम्पा	Sterculiaceae	12
56	<i>Putranjiva roxburghii</i>	पुत्रंजीवा	Putranjivaceae	12
57	<i>Radermachera xylocarpa</i>	गरुड	Bignoniaceae	15
58	<i>Rauvolfia serpentina</i>	सर्पगंधा	Apocynaceae	10

S. No.	Scientific Name	Vernacular Name	Family	Number
59	<i>Sapindus trifoliatus</i>	अरीठा	Sapindaceae	10
60	<i>Sarcostemma acidum</i>	सोमवल्ली	Apocynaceae	12
61	<i>Schleichera oleosa</i>	कुसुम	Sapindaceae	10
62	<i>Schrebera swietenoides</i>	मौखा	Oleaceae	15
63	<i>Semecarpus anacardium</i>	भिलामा	Anacardiaceae	10
64	<i>Senna siamea</i> (<i>Cassia siamea</i>)	कसोद	Caesalpinaceae	15
65	<i>Sesbania grandiflora</i>	अगस्ता	Fabaceae (Papilionaceae)	20
66	<i>Soymida febrifuga</i>	रोहन	Meliaceae	10
67	<i>Stereospermum chelonoides</i>	पाडर	Bignoniaceae	15
68	<i>Swietenia macrophylla</i>	महोगनी	Meliaceae	20
69	<i>Syzygium cumini</i>	जामुन	Myrtaceae	10
70	<i>Tabernaemontana divaricata</i>	चांदनी	Apocynaceae	10
71	<i>Tecoma stans</i> var. <i>angustata</i>	टिकोमा	Bignoniaceae	15
72	<i>Tectona grandis</i>	सागोन	Verbenaceae	15
73	<i>Terminalia arjuna</i>	अर्जुन	Combretaceae	15
74	<i>Terminalia bellirica</i>	बहेडा	Combretaceae	15
75	<i>Terminalia chebula</i>	हरड	Combretaceae	10
76	<i>Terminalia elliptica</i>	साजा	Combretaceae	10
77	<i>Terminalia neotaliala</i>	टर्मिनेलिया	Combretaceae	15
78	<i>Thespesia populnea</i>	पारस पीपल	Malvaceae	10
79	<i>Azadirachta indica</i>	नीम	Meliaceae	20
80	<i>Cassia fistula</i>	अमलतास	Caesalpinaceae	20
81	<i>Celastrus paniculatus</i>	मालकंगनी	Celastraceae	20
82	<i>Crateva adansonii</i> subsp. <i>odora</i>	वरुण	Capparaceae	10
83	<i>Elaeis</i>	पाम	Arecaceae	10
84	<i>Entada</i> sp.	एंटाडा	Mimosaceae	10
85	<i>Erythrina subumbrans</i>	एरीथ्रिना	Fabaceae	10
86	<i>Ficus benghalensis</i>	बढ़	Moraceae	5
87	<i>Ficus religiosa</i>	पीपल	Moraceae	15

S. No.	Scientific Name	Vernacular Name	Family	Number
88	<i>Neolamarckia cadamba</i>	कदम्ब	Rubiaceae	15
89	<i>Nymphaea sp.</i>	कुमुदिनी	Nymphaeaceae	10
90	<i>Oroxylum indicum</i>	शयोनक	Bignoniaceae	10
91	<i>Peltophorum pterocarpum</i>	पीला गुलमोहर	Caesalpiniaceae	10

Table 2. Details Of Shrubs And Climbers In College Campus

S. No.	Scientific Name	Vernacular Name	Family	Number
1	<i>Annona squamosa</i>	सीताफल	Annonaceae	15
2	<i>Araucaria sp.</i>	ओरेकैरिया	Araucariaceae	12
3	<i>Argyreia nervosa</i>	विधारा	Convolvulaceae	10
4	<i>Bixa orellana</i>	सिंदूर	Bixaceae	15
5	<i>Caesalpinia bonducella</i>	गटारण	Caesalpiaceae	15
6	<i>Caesalpinia pulcherrima</i>	गुलतुरी	Caesalpiaceae	10
7	<i>Celastrus paniculatus</i>	मालकंगनी	Celastraceae	10
8	<i>Cestrum diurnum</i>	दिन का राजा	Solanaceae	5
9	<i>Combretum indicum</i>	मधुमालती	Combretaceae	10
10	<i>Dendrocalamus sp.</i>	बांस देशी	Poaceae	20
11	<i>Gloriosa superba</i>	कलिहारी	Liliaceae	5
12	<i>Helicteres isora</i>	मरोड फली	Sterculiaceae	5
13	<i>Hibiscus rosa-sinensis</i>	गुडहल	Malvaceae	15
14	<i>Ixora coccinea</i>	एक्झोरा	Rubiaceae	15
15	<i>Jacaranda mimosifolia</i>	जैक्रेंडा	Bignoniaceae	15
16	<i>Jatropha sp.</i>	जेट्रोपा	Euphorbiaceae	10
17	<i>Juniperus polycarpos</i>	जुनिपेरस	Cupressaceae	10
18	<i>Justicia adhatoda</i> (<i>Adhatoda vasica</i>)	अडूसा	Acanthaceae	10
19	<i>Pandanus sp.</i>	केवडा	Pandanaceae	15
20	<i>Plumeria pudica</i>	नागचम्पा	Apocynaceae	10
21	<i>Plumeria rubra f. rubra</i>	चम्पा (लाल)	Apocynaceae	10
22	<i>Plumeria rubra var. acutifolia</i>	चम्पा (सफेद)	Apocynaceae	10
23	<i>Tecoma stans var. angustata</i>	टिकोमा	Bignoniaceae	10
24	<i>Thuja occidentalis</i>	विद्या	Cupressaceae	15
25	<i>Basella alba</i>	पोई	Basellaceae	5
26	<i>Costus sp.</i>	इंसुलिन प्लांट्स	Costaceae	5
27	<i>Hamelia patens</i>	हैमेलिया	Rubiaceae	15
28	<i>Mucuna pruriens</i>	केवांच	Fabaceae	5

S. No.	Scientific Name	Vernacular Name	Family	Number
29	<i>Musa sp.</i>	केला	Musaceae	5
30	<i>Plumbago zeylanica</i>	चित्रक	Plumbaginaceae	10
31	<i>Simarouba glauca</i>	लक्ष्मी तरु	Simaroubaceae	10
32	<i>Tinospora cordifolia</i>	गिलोय	Menispermaceae	10

Table 3. List of tree of cultivated herbs in college campus:

S.No	Scientific Name	Vernacular Name	Family
1	<i>Sansevieria</i>	Snake plant	Asparagaceae
2	<i>Duranta erecta</i>	Golden hedge	Verbenaceae
3	<i>Clerodendrum Inerme</i>	Sankuppi	Verbenaceae
4	<i>Cymbopogon citratus</i>	Lemon grass	Poaceae
5	<i>Ocimum tenuiflorum</i>	Marua Tulsi	Lamiaceae
6	<i>Ocimum sanctum</i>	Holy basil Tulsi	Lamiaceae
7	<i>Zephyranthes rosea</i>	Rain lilies	Amaryllidaceae
8	<i>Canna indica</i>	Canna lily	Cannaceae
9	<i>Hymenocallis littoralis</i>	Spider lily	<u>Amaryllidaceae</u>
10	<i>Syngonium</i>	Arrow head Plant	Araceae
11	<i>Loropetalum</i>	Lalsa plant	Hamamelidaceae
12	<i>Catharanthus rosea</i>	Sadabahar	Apocyanaceae
13	<i>Ruellia simplex</i>	Mexican petunia	Acanthaceae.
14	<i>Euphorbia tithymaloides</i>	Devil's backbone	Euphorbiaceae
15	<i>Polianthes tuberosa</i>	Rajnigandha	Asparagaceae
16	<i>Euphorbia tirucalli</i>	Pencil tree	Euphorbiaceae
17	<i>Euphorbia milii</i>	Crown of thorns	Euphorbiaceae
18	<i>Crassula ovata</i>	Jade plant	Crassulaceae
19	<i>Dieffenbachia seguine</i>	dumbcane	Araceae
20	<i>Ficus elastica,</i>	Rubber plant	Euphorbiaceae
21	<i>Epipremnum aureum</i>	Money Plant	Araceae
22	<i>Portulaca oleracea</i>	Office time	Portulacaceae
23	<u><i>Portulaca Grandiflora</i></u>	Moss rose	Portulacaceae
24	<i>Tradescantia pallida</i>	Purple heart	Commelinaceae
25	<i>Mirabilis jalapa</i>	4 O'clock plant	Nyctaginaceae
26	<i>Euphorbia grantii</i>	African milk bush	Euphorbiaceae
27	<i>Cestrum nocturnum</i>	Rat ki rani	Solanaceae

Table 4. Wild Herbaceous Plants

S.No	Scientific Name	Vernacular Name	Family
1.	<i>Parthenium hysterophorus</i>	Congress grass	Asteraceae
2.	<i>Setaria verticillata</i>	Bristlegrass	Poaceae
3.	<i>Oxalis corniculata</i>	Changeri	Oxalidaceae
4.	<i>Eleusine procera</i>	Jhingari	Poaceae
5.	<i>Calotropis procera</i>	Aak	Asclepidaceae
6.	<i>Achyranthus aspera</i>	Latjeera	Amaranthaceae.
7.	<i>Chenopodium alba</i>	Bathua	Amaranthaceae.
8.	<i>Boerhaavia diffusa</i>	Punarnava	Nyctaginaceae
9.	<i>Cocculus hirsutus</i>	Jaljamni	Menispermaceae
10.	<i>Malvastrum coromandelianum</i>	Mallow	Malvaceae
11.	<i>Cassia occidentalis</i>	Sanay	Fabaceae
12.	<i>Senna obtusifolia</i>	Sicklepod	Fabaceae
13.	<i>Triumfetta pentandra</i>	Burbark	Tiliaceae
14.	<i>Eclipta prostrata</i>	bhringaraj	Asteraceae.
15.	<i>Euphorbia hitra</i>	Badi dudhi	Euphorbiaceae
16.	<i>Corchorus trilocularis</i>	Jangali jute	Malvaceae
17.	<i>Alternanthera pungens</i>	Khaki weed	Amaranthaceae
18.	<i>Oplismenus burmannii</i>	Basketgrass	Poaceae
19.	<i>Cyperus rotundus</i>	Cyprus grass	Cyperaceae
20.	<i>Cyperus deformis</i>	Dila/motha	Cyperaceae
21.	<i>Acalypha indica</i>	Copper leaf	Euphorbiaceae
22.	<i>Datura alba</i>	Thorn apple	Solanaceae
23.	<i>Tridax procumbens</i>	Coat buttons	Asteraceae
24.	<i>Sonchus arvensis</i>	Milk thistle	Asteraceae
25.	<i>Cleome viscosa</i>	Hur hur	Cleomaceae.
26.	<i>Ageratum conyzoides</i>	goatweed	Asteraceae
27.	<i>Evolvulus alsinoides</i>	dwarf morning-glory	Convolvulaceae
28.	<i>Cyanodon dactylon</i>	Doob ghaas	Poaceae
29.	<i>Solanum nigrum</i>	Makoi	Solanaceae
30.	<i>Argemone maxicana</i>	Satyanashi	Papaveraceae
31.	<i>Euphorbia thymifolia</i>	Laghududhika.	Euphorbiaceae
32.	<i>Euphorbia hypericifolia</i>	Dudhi	Euphorbiaceae
33.	<i>Tribulus terrestrialis</i>	Gokhuru	Zygophyllaceae
34.	<i>Pupalia lappacea</i>	Forest Burr	Amaranthaceae
35.	<i>Xanthium strumarium</i>	Cocklebur	Asteraceae.
36.	<i>Calotropis procera</i>	Aak/Madar	Asclepiadaceae:
37.	<i>Anagallis arvensis</i>	Neel krishna	Primulaceae
38.	<i>Spergula arvensis</i>	Van dhaniya	Caryophyllaceae
39.	<i>Lathyrus sativum</i>	Khesari	Fabaceae
40.	<i>Polygonum</i>	Knot weed	Polygonaceae
41.	<i>Eleusine indica</i>	goosegrass	Poaceae

3.5 Recommendations-

- Geo tagging of all trees should be done.
- Students should be assigned plants to take care for.
- Each and every tree should be well documented.



GREEN PLANT IN THE CAMPUS



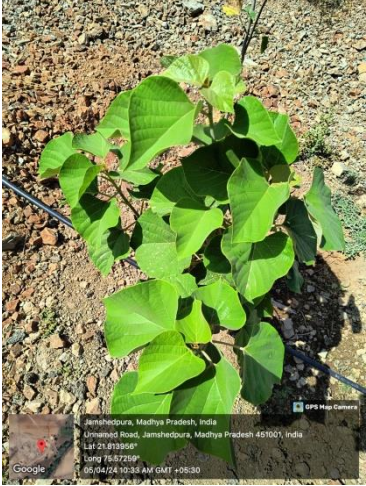


Figure 3. Main Garden of college

CHAPTER – 4

FAUNA DIVERSITY

4.1 Introduction

Biodiversity is the part of the campus. A rich biodiversity not only provides the shelter to many species around the college but also take us closer to the nature and for a student it is very important to connect to nature at every level. Govt. P. G. College Khargone, (M.P.) is home to many different species around the campus. It has a very rich biodiversity. It consists of the following different animals in the campus-

a) Family Bufonidae

- i. Common Toad (*Duttaphrynus Melanostictus*)

b) Family Dicroglossidae

- i. Common Bull Frog (*Hoplobatrachus Tigrinus*)
- ii. Common Skittering Frog (*Euphlyctis Cyanophlyctis*)
- iii. Burrowing Frog (*Sphaerotheca Braviceps*)

c) Family Rhacophoridae

- i. Common tree frog (*Polypedates maculatus*)

d) Lizard Family

- i. House wall lizard (*Hemiductylus flaviviridis*)
- ii. Common Bark Gecko (*Hemiductylusleschenaultii*)
- iii. Brahmini (*Lygosoma punctata*)
- iv. Many keeled grass skink (*Eutrophiscarinata*)
- v. Goh or Goyra or Monitor lizard (*Varanusbengalensis*)
- vi. Girgit or Garden lizard (*Calotesversicolor*)

e) Reptiles Family

- i Indian Rat Snake – (*Ptyas Mucosa*)
- ii Cobra – (*Serpentis*)
- iii Peacock – (*Phasianidae*)

f) Birds in the Campus

Various type of birds are also present in the campus. List of all the birds in the campus is given below:



Table 5. List of all the Birds in the campus




S. No.	Common name	Scientific name
1	Crow	Corvus Corax
2	Pigeon	Columbia livia
3	Myna	Acridotheres
4	Nightingale	Luscinia megarhynchos
5	Humming Bird	Trochilidae
6	Sparrow	Passeridae
7	Eagle	Accipitridae
8	Cuckoo	Cuculidae
9	Hawk	Accipitridae
10	Kite	Milvus migrans
11	Owl	Strigiformes
12	Dove	Columbidae




4.2 Observations and Recommendations




- Biodiversity of the campus is very rich.
- Maximum possible animals should be identified.
- All the identified animals should be well documented.
- Students should be aware about the fauna diversity of the college.




4.3 Details of fauna





1.	<p>Scientific Name: – <i>Scolopendra sp.</i> Common Name: - Centipede</p> <p>Classification:</p> <p>Phylum-Arthropoda</p> <p>Class-Chilopoda</p> <p>Order-Scolopendromorpha</p> <p>Genus-<i>Scolopendra</i></p>	
2.	<p>Scientific Name – <i>Poeciloceris sp.</i></p> <p>Common Name- Grasshopper</p> <p>Classification –</p> <p>Phylum- Arthropoda</p> <p>Class- Insecta</p> <p>Order- Orthoptera</p> <p>Genus-<i>Poeciloceris</i></p>	

<p>3.</p>	<p>Scientific Name: – <i>Carausius sp.</i></p> <p>Common Name: - Stick insect</p> <p>Classification:</p> <p>Phylum-Arthropoda</p> <p>Class- Insecta</p> <p>Order- Plasmida</p> <p>Genus-<i>Carausius</i></p>	
<p>4.</p>	<p>Scientific Name: – <i>Forficula sp</i></p> <p>Common Name: - Earwig</p> <p>Classification:</p> <p>Phylum-Arthropoda</p> <p>Class- Insecta</p> <p>Order- Dermaptera</p> <p>Genus-<i>Forficula</i></p>	
<p>5.</p>	<p>Scientific Name: – <i>Mantis sp.</i></p> <p>Common Name:Praying Mantis</p> <p>Classification:</p> <p>Phylum-Arthropoda</p> <p>Class- Insecta</p> <p>Order- Dictyptera</p> <p>Genus-<i>Mantis</i></p>	

6.	<p>Scientific Name: – <i>Periplaneta sp.</i></p> <p>Common Name: - Cockroach</p> <p>Classification:</p> <p>Phylum-Arthropoda</p> <p>Class- Insecta</p> <p>Order- Blattodea</p> <p>Genus-<i>Periplaneta</i></p>	
7.	<p>Scientific Name: – <i>34an asp34</i></p> <p>Common Name: - Cloth Moth</p> <p>Classification:</p> <p>Phylum-Arthropoda</p> <p>Class- Insecta</p> <p>Order- Lepidoptera</p> <p>Genus-<i>Tinea</i></p>	
8.	<p>Scientific Name: – <i>Papilios</i> .Common Name: - Butterfly</p> <p>Classification:</p> <p>Phylum-Arthropoda</p> <p>Class- Insecta</p> <p>Order- Lepidoptera</p> <p>Genus-<i>Papilio</i></p>	

<p>9.</p>	<p>Scientific Name: <i>Helix</i>sp Common Name: -Garden snail Classification: Phylum-Mollusca Class-Gastropoda Order-Stylommalophora Genus-<i>Helix</i></p>	
<p>10.</p>	<p>Scientific Name: – <i>35an asp.</i> Common Name: - Frog Classification: Phylum- Chordata Class- Amphibia Order- Anura Genus-<i>Rana</i></p>	
<p>11.</p>	<p>Scientific Name: – <i>Calotes sp.</i> Common Name: -Bloodsucker Classification: Phylum- Chordata Class- Reptilia Order-Lepidoptera Genus-<i>Calotes</i></p>	

12.	<p>ScientificName: –<i>Hemidactylussp.</i></p> <p>Common Name: - Wall lizard</p> <p>Classification:</p> <p>Phylum- Chordata</p> <p>Class- Reptilia</p> <p>Order- Lepidoptera</p> <p>Genus-<i>Hemidactylus</i></p>	
13.	<p>Scientific Name: – <i>Passer sp</i></p> <p>CommonName: -Housesparrow or Gauriya</p> <p>Classification:</p> <p>Phylum-Chordata</p> <p>Class-Aves</p> <p>Order-Passeriformes</p> <p>Genus-<i>Passer</i></p>	
14.	<p>Scientific Name: – <i>Columba sp.</i></p> <p>CommonName: -Bluerockpigeon or Kabutar</p> <p>Classification:</p> <p>Phylum-Chordata</p> <p>Class-Aves</p> <p>Order-Columbiformes</p> <p>Genus-<i>Columba</i></p>	
15.	<p>Scientific Name: – <i>Psittacula sp.</i></p> <p>Common Name: - Hiramantota</p> <p>Classification:</p> <p>Phylum-Chordata</p> <p>Class-Aves</p> <p>Order-Psittaciformes</p> <p>Genus-<i>Psittacula</i></p>	

16.	<p>Scientific Name: Corvus sp.</p> <p>Common Name: Crow or Kag</p> <p>Classification:</p> <p>Phylum-Chordata</p> <p>Class-Aves</p> <p>Order-Passeriformes</p> <p>Genus-<i>Corvus</i></p>	
17.	<p>Scientific Name: – Pteropus sp.</p> <p>Common Name: - Fruit bat or Chamgadar</p> <p>Classification:</p> <p>Phylum- Chordata</p> <p>Class- Mammalia</p> <p>Order-Chiroptera</p> <p>Genus-Pteropus</p>	
18.	<p>Scientific Name: – Funambulus sp.</p> <p>Common Name: - Gilhari</p> <p>Classification: Phylum- Chordata</p> <p>Class- Mammalia</p> <p>Order- Rodentia</p> <p>Genus-Funambulus</p>	
19.	<p>Scientific Name: – Rattus sp.</p> <p>Common Name: - Black rat</p> <p>Classification:</p> <p>Phylum- Chordata</p> <p>Class- Mammalia</p> <p>Order- Rodentia</p> <p>Genus-Rattus</p>	

CHAPTER - 5

CARBON FOOT PRINT

Carbon footprint in the Campus:

A carbon footprint is the total amount of greenhouse gas emissions that come from the production, use and end-of-life of a product or service. It includes carbon dioxide - the gas most commonly emitted by humans - and others, including methane, nitrous oxide, and fluorinated gases, which trap heat in the atmosphere, causing global warming. Usually, the bulk of an individual's carbon footprint comes from transportation, housing, energy and food.

A carbon footprint (or greenhouse gas footprint) is a calculated value or index that makes it possible to compare the total amount of greenhouse gases that an activity, product, company or country adds to the atmosphere. Carbon footprints are usually calculated in tonnes of emissions. India's per capita carbon emissions are significantly low at 2.29 tons compared to the global average of 6.3 tons. India's population is 17% of world population while our contribution to carbon dioxide load is only 3.5%. Even now, our per capita emissions are one third of world average.

The Method of calculating Carbon foot print in the following



Figure 4. Calculating Carbon footprint

Carbon foot print of college campus is calculated it is around 0.9613 Kg CO2 /kWh