

BASELINE ENVIRONMENTAL ASSESSMENT OF SATYANIKETAN'S ADV. M. N. DESHMUKH COLLEGE RAJUR 2021 - 22



Introduction

Satyaniketan' Rajur educational complex has its own status of one of the progressive education societies in Ahmednagar district. The campus is situated equidistant 60 kms from Sangamner and 25 km from historical place Akole. The entire campus spreads over 12.5 acres of

land constituting different sub-units of colleges. This college has proved to be main stream education source in surrounding Adivasi area and has impacts on the surrounding community.

Rajur region has been economically backward and tribal with marginal awareness of Higher education. On this background, Satyaniketan established Arts and Science College in the initial phase. At present Satyaniketan has nurseries, Day Care Centers and Hostels, Ashram-Schools, Junior College and then Senior College for Higher Education including Arts, Commerce and Science. it was an. The main objective behind establishing Satyaniketan was to work for overall development of Adivasis and bring them into main stream since 1950.

The inception of the education complex was done by a great visionary founder late Hon. R. V. Patankar in 1950. At present the organization is actively progressing under the dynamic leadership of Hon. Adv. M. N. Deshmukh known for his environmentally sustainable development in the region. The organization has started job-oriented courses for educationally and financially deprived *adivasis* in the region.

Satyaniketan' Adv. M. N. Deshmukh College, Rajur shows its strong willingness to plan and demonstrates its commitment to execute strategies and action plan. The organization is looking for overall development of the *adivasi* students with the vision:

Vision:

असतोमा सद्गमय ।“*Asto ma Sadagamaya*”It means from ignorance, lead me to truth;

“To uplift downtrodden, backward, tribal, rural and weaker section of Rajur region and to motivate, bring out change in the social, educational and economic status and inspire them to uplift their intellectual, moral, scientific and educational level”

Mission:

- To provide an open access to learning, irrespective of caste, religion and color to the tribal and rural community.

- To empower the illiterate, ignorant, uneducated masses by educating them and by creating in them the social, political, cultural, and scientific awareness.
- To develop leadership qualities and democratic values among students and thus effect their holistic development.
- To focus on the all-round development of all students; spiritual, Moral, intellectual, Social, educational, emotional and physical.
- To make them think that Knowledge is power and help them in creating their future.
- To be a center of excellence in teaching, research and extension activities.

College has Clear quality policies, principles and goals to make future responsible citizens. The management constantly provides direction for staff, administrators, and other members of the campus community. Clear decision-making and reporting mechanisms with responsibilities to monitor, and report promotes action for environmental sustainability.

Objectives of the Institution

- To implement the academic curriculum as per the Savitribai Phule University, Pune.
- To make available opportunities for tribal and rural students to acquire their goal.
- Nurturing emerging disciplines in response to rapidly changing the world.
- Impart higher education curriculum to tribal and rural students in the Rajur town and nearby rural tribal villages.

The organization encourages many ways to implement sustainable activities through which students and staff find their ways for community-based research. Environment conservation is one of the ten values at global level and organization has taken several serious steps reduce possible environmental impact. The organization very systematically progressing for its own development so that students studying in the campus for various courses should able to use optimum resources for their development. The following comprehensive yearly planner shows organization commitment and responsibility towards environment protection.

Courses-

The College offers conventional and professional courses for under graduate student in Arts, Science and Commerce faculty and M.Sc. in Chemistry for PG student. The curriculum is provided by Savitribai Phule Pune University for all courses. On the broad level the students can go in for Arts, Commerce and Science courses for their graduations. Within each faculty, there are a number of elective internal options available to the students. In the Arts faculty students can specialize in the subject of English, Marathi, Hindi, Geography, History and Political Science for graduation. They have the option to specialize in all their subjects. In the science faculty the students can specialize in Chemistry and Botany. A post graduate course M.Sc in Organic Chemistry is also available in the college. The vision; mission and objectives of the college are communicated to students and other stakeholders.

- For effective operationalization of the curricula, action plan is developed and deployed. Teaching plans are prepared by all teachers and actual implementation is carried out by HoD of respective Department and IQAC.
- For effective translation of curriculum and improved teaching practices, teachers have been promoted to attend workshops on curriculum revision. Training programmes have been organized by IQAC for ICT use in teaching methodology.
- There is great deal flexibility available to the students. **At UG level, 10 subjects are offered with 07 programmes available in Arts, 02 programmes in Science and 01 in Commerce faculty. At PG level 01 subject is offered in Science faculty.**

The college comprise of courses from UG to PG (Arts, Commerce, Science), Around 1508 students enrolled for various courses. The total staff of 55 (teaching and Non-teaching) are working in order to maintain healthy learning environment surrounding, in and around educational complex. It was decided to carry out baseline environmental assessment for the following purposes.

- To establish a baseline of existing environmental scenario
- To provide base for sustainability practices
- To promote environmental awareness through continuous assessment process
- To create an educational document for future use

The first step taken in this direction is establishing a baseline survey. The different environmental criteria with their current status, action being taken by an institution and effective

ways to improve the actionable points being highlighted in this report. Sensitization of all the stakeholders of an institution towards eco-friendly campus is very crucial at this juncture. In view of making green and eco-friendly campus the organization has taken an important step to understand the environmental parameters within the campus. This report highlights organization efforts towards greener campus.

2. Environmental criteria's

2.1. Know green and think green is promoted within the campus

Governance and Leadership

Satyaniketan' Adv. M. N. Deshmukh College, Rajur determinedly working in the area since 1993 with the mission. The Principal Dr. B. Y. Deshmukh has laid down the clear policies of allocation work among teaching, non-teaching and support staff. The availability of the resources for staff and students being taken care and encouraging for sustainable development of the campus.

Action:

The College has an active Environmental Advisory Committee (EAC), since 2014 which is composed of members each from different stake holders of the college. It is co-chaired by a student and by the principal of the college. The EAC has been very active in analyzing and advising the College on campus eco-friendly practices.

Environmental Advisory Committee (EAC)

Sr. No.	Name of Member		Post
1.	Dr. B.Y. Deshmukh	Principal	Chairman
2.	Dr. B. K. Tapale	Teacher Representative	Secretary
3.	Prof. S. K. Thorat	Teacher Representative	Member
4.	Dr. L. L. Wale	Teacher Representative	Member
5.	Dr. V. N. Gite	Teacher Representative	Member
6.	Dr. P. T. Karande	Teacher Representative	Member
7.	Mr. R. M. Deshmukh	Office superintendent	Member
8.	Mr. S. J. Nikam	Lab attendant	Member
9.	Mr. Hussain Tamboli	Student representative	Member
10.	Mr. Prakash Mahale	Parent representative	Member

The roles and responsibilities of this Environmental Advisory Committee has been clearly mentioned and communicated. The meetings being held once in every two months. The committee has pointed out the need of various action programmes in align with the mission of the organization.

2.2 Canteen

The college has provided a facility of canteen of 600 sq. feet with 600sq.feet open usable area within campus which provides lunch, snacks and tea for students and staff. The total number students 1231 from different streams and 59 staff members visits canteen at different intervals. The college authorities have appointed a food supply vender on annual contract basis. On an average 400 persons including staff and students visits canteen on daily basis on working days. Canteen vendor at present following the rules set for him by college authorities. The approximate water use in canteen area including drinking, hand wash, food preparation and washing of utensils is approximately 1000 lit/day. The solid waste generated on working days is in the range of 4-5kg dry waste and 2-3kg wet waste.

Action:

The College runs a canteen on contract basis. It has a governing committee. The committee visits the canteen weekly and pays attention to the hygienic conditions, based on the suggestions received from the students, staff etc. The canteen provides a range of food items at affordable rates to students and staff. Smoking is strictly prohibited Junk food is also strictly prohibited.

College canteen area is situated away from classrooms with covered shade. Safe drinking water being utilized in the canteen supplied by Rajur *Grampanchayat* Water supply and college water supply scheme schemes. At present canteen waste water being collected separately from the specially made basin and water disposed of in the sock pit.

Steps were taken to reduce pre- and post-consumer food waste by making use of effective solid waste collection system. The canteen vendor strictly uses paper plates and glass for serving snacks and tea. Attempts being made for minimum use plastic and tetra packs, which is being

collected separately. For the post-consumer food waste, there is an understanding with local *Grampanchayat* to collect and the biodegradable waste being sent to vermin-composting unit for disposal.

Grampanchayat	Waste treatment management
• Informal Letter to Grampanchayat	21/07/2021
• Informal Letter to the institution	22/07/2021

The authorities have set up 500 sq ft. vermi-composting facility for converting organic waste into organic manure. The quality and quantity of vermi-compost being regularly monitored by Chemistry and Zoology students under the supervision of respected HOD's.

2.3 Water conservation and prevention of water wastage

The college campus encompasses with different faculties and courses from Arts, Commerce and Science faculties. Management ensures adequate, safe and continuous supply of water for drinking and other uses for students and staff. The source of water for the college is college water supply scheme. The water quality monitoring is being done regularly to assess the pot-ability. The water consumption within the campus is controlled and effectively channelized by campus authority. Water coolers were placed at adequate places for drinking water. Rain water being effectively stored utilized for various purposes.

Water storage system includes 11 overhead and underground tanks of total capacity 91,000 liters within the entire campus area. The additional water in terms of swimming pool has been maintained in the college. The college has Semi Olympic 8 Lane Swimming Pool, funded by UGC. The size of swimming pool 50m x 20m x 1.50 m depth and practice pool 16m x16m x 0.9m depth. Distribution of water for various facilities within the campus has been summarized as follows.

S.No	Tank Description	Capacity in ltrs
1	Tank no.1 at Boys Hostel	2000 ltrs
2	Tank no.2 at Boys Hostel	2000 ltrs
3	Tank no.3 at Boys Hostel	2000 ltrs
4	Tank no.4 at Boys Hostel	2000 ltrs
5	Boys Hostel terrace	6000 ltrs
6	Tank no.1 at Girls Hostel	5000 Ltrs
7	Tank no.2 at Girls Hostel	5000 Ltrs

8	Tank no.1 College campus	2000 ltrs
9	Tank no.2 College campus	1500 ltrs
10	College terrace	50000 ltrs
	Total	91,000 ltrs
11	Additional in terms of swimming pool	2,00,000 ltrs

The approximate water uses on any working day during working hours can be summarized as follows.

S. No	Activity	Utilization	Total ltrs
1	Drinking (hostel, college campus, canteen etc.)	1231 x approximately 2 lits ((Student + staff+ visitors)	2462
2	Toilets/urinals/ (college, Hostel, Swimming pool, guest house etc.)	1231 x approximately 3lit for toilet & urinal,	3693
3	Hostel utilization other than drinking (Bath, washing utensils, cloths, cooking etc.	20lits for bath, 20ltrs washing clothes, 2ltrs cooking & washing utensils	9000
4	Swimming pool (pre and post showers)	Daily use 70 persons/20 ltrs	1250
5	Laboratories (UG + PG) all subjects	9 labs x 250 students x 5 ltrs	1100
6	Watering plants		4500
7	Spraying on play ground		1000
8	Canteen area		900
9	Cleaning (toilets, urinals, Bathrooms, kitchens, laboratories, flooring	107 toilets & urinals, 47 bathrooms, 3 kitchens, 9 laboratories, etc.	2950
10	Projects (Vermi-compost, sericulture etc.)	Watering, cleaning etc.	500
	Total approximate utilization		27355

Action:

The washing and cleaning of storage tanks and drinking water coolers regularly being carried out. The maintenance of water supply network within the campus is maintained properly to protect it from leakage and decay. The drainage system is designed properly to care of waste water.

- 1) Awareness (slogans, posters) on minimum and adequate water use.
- 2) Regular water quality monitoring. (Drinking water Coolers -3), waste water from coolers channelized into gardens.
- 3) Well planned laboratory schedule of practical's and research work. Laboratory waste water discharged into sock pits (Lab sock pits- 2.
- 4) Compulsory practice for checking all the taps while departure for the day by all the stakeholders of the college.
- 5) The design of urinals being made in Indian type. Drainage water from urinals and canteen discharged into sock pit.
- 6) Watering to plants being done by manually and sprinklers and drip during morning and evening time.
- 7) Work in progress for the rain water harvesting facility.
- 8) Farm pond of capacity 20,000ltrs for storage of excess water has been created through "*Jalyukt Shivar*" Govt initiative.
- 9) Maintained green cover throughout the campus for minimum water loss.
- 8) Timely maintenance schedule for ensuring the implementation of water supply system devices.
- 9) Routine survey for various water consumption patterns.
- 10) Swimming pool water being reused at the time of swimming pool maintenance for cleaning and spraying it on the ground.

2.4 Solid waste management

Mainstreams' Arts, Commerce and science faculties are implementing different educational courses with flexible working hours from 8am to 4.30pm. Total number of 1600(Student and Staff)

are utilizing the campus throughout the day. Different types of waste being generated from classrooms, canteens, laboratories, libraries admin sections, auditoriums, urinals and office areas. The daily solid waste being generated in the camps categorized in the following way.

S. No	Activity	Utilization (Student + staff)	Total kg.
1	Classroom 19	19 x 400 gm	6.0 kg approximately
2	Laboratories	Labs 9 x 1.5 kg	8.0 kg approximately
3	Canteen	Students used for snacks or meal	3.0 kg approximately
4	Sweeping and cleaning	Campus	4.0 kg approximately
5	Admin block, (All offices) conference hall, auditorium, library, Boys & girls Gym, wrestling room, guest house, swimming pool etc.	Different academic and supportive activities	3.0 kg approximately
6	Hostels	Girls & boys	4.0 kg approximately
	Total solid waste generation /working day		28 kg approximately

Action:

1) Usage of recycled paper bags was promoted among students by displaying boards like 'Say No to Plastic'

2) Students being encouraged for using non plastic bags.

3) Reduce – Reuse – Recycle methods are followed

The collection bins are made for specific types of waste. All these type of waste collected separately and given to respective vendors for recycling.

a) Dry waste b) Paper waste c) Plastic d) e-waste

The remaining waste being given to solid waste collection system of Rajur *Grampanchayat*.

4) The number of printouts has been reduced from admin blocks and computer laboratories. The regular necessary printouts was attempted to be taken on used i.e. one sided paper.

5) The admission procedure and other record made online (paperless)

6) The vermin-compost facility is in operation to convert organic waste into organic manure. The dry tree leaves will be utilized for composting.

7) Well maintained cleaning and sweeping schedule to maintain campus clean. The solid waste being collected regularly with predefined disposal method.

8) Use of ICT resources: - The College use Computers and ICT facilities for paperless office. Most of the record of students, staff, examination result, and administration work is scanned and preserved in the form of soft copy. Email facilities are used for office communication.

Chemical waste management

The college authorities are well aware about the existence of a monitoring and management process for each chemical-intensive process. This process considers toxicity, downstream impacts, staff safety etc.

Action:

- 1) The college performs well in terms of custodial chemical use, monitoring their use, minimizing their impact, and keeping employees and others safe.
- 2) All of the chemicals are bought by contracting with only one company, the college reduces costs, limits inventory, limits overuse, and help maintain consistent chemicals (consistency helps keep workers safe because the chemicals are familiar).
- 3) The college now is working with some more cutting edge, environmentally friendly products such as oxidation products, citric acid-based products,
- 4) While purchasing chemicals considerations being made that all of the packaging that is recyclable.
- 5) Laboratory staff members are all trained by the vendor twice a year here to make sure that all staff members are familiar with the products. Each bottle of chemical has label to avoid confusion over what exactly is in a particular bottle.
- 6) There is a policy for the handling and disposal of hazardous materials. There is a safe and well-maintained chemical storage area. Expired and used chemicals being returned to the same vendor.

E-waste management

The college has a system to collect e-waste in the campus separately and handover to trust office for further disposal procedures.

2.5 Carbon dioxide neutrality

The college campus situated at **19.5277 Latitude & 73.8680 Longitude** with average rainfall in the area 593 mm. Carbon dioxide neutrality has been maintained on the campus by developing greenery with available plants. It has been attempted to maintain greenery in the campus. The 2/3 area is occupied by greenery of all type of plant (7483 plants having 126 varieties)

Action:

- 1) The campus is situated in such an area that there is no any other type of disturbance. The industries are not in the vicinity of the campus.
- 2) The total constructed area is 7 acres as compared to total area of 12.5 acres.
- 3) An indoor atmosphere is designed to be well ventilated that airflow mixing of fresh/outdoor air is continuous.
- 4) No electricity is required during day time.
- 5) Specific strategies and plans in place in order to reduce transportation impacts.
 - A) Parking slot for students and staff (350 bikes and 20, 4 wheelers) maintained near the main entrance to restrict the traffic movement in the campus.
 - B) Awareness among the students was increased to use public transport.
 - c) The layout of the campus is relatively open with much green space, thus
Keeping the amount of impermeable surface area below 50%
 - d) The college has a canopy of trees and plants that make the environment healthy. The garden plantation with shade giving trees which in turns provide beautiful ambience. These trees are also important as per economic point of view.
 - e) **Prevention of pollutions:** - The College tries to minimize the level of pollution in the campus by avoiding the burning of garbage and waste papers. The garbage and waste papers are used in the Vermiculture unit. The Organic waste material in campus is

used for creating natural manure. This natural manure is used for garden, plants, trees, vegetables etc. in the College campus.

f) The trees like Mango, Neem, Vad, Pimpal, Aamala, Jambhal, Sag etc. are shade giving as well as important as per ecological point of view. As they release more oxygen and helps in reducing air pollutants. These are also marked as ecological indicators showing water contents in aquifers.

g) Plants were selected with low maintenance requirements and that otherwise fit the local ecosystem (provide habitat for native species of insects and birds).

h) The medicinal plants being planted and maintained in the campus (List attached). Some plants mentioned in list of medicinal plants are really important (e.g. Gawati chaha, Safed Rui, Amla, Umber, kadu limb, Gulwel, Pudina, Sunth, Krishna Tulas, Nirgudi, Adulasa, Bael, Bahava, Sabja). The college is in the process of increasing the area of botanical garden which will be utilized for research project purpose.

I) Vermi Culture Project

The campus has vermi culture project of 30 kg. Capacity. in our college. The manure prepared through this project being utilized by Botanical Garden. The guidance given to the students as well as farmers in the village regarding the importance of the manure and its uses in the farm. As a part of community involvement and stakeholders' contribution, many students as well as farmers have taken the advantage of the guidance in the course of time.

J) Inter-disciplinary research: -

The College has a wide spectrum of disciplines with expertise available in a variety of areas, with various facilities at each department and most of the teachers are actively engaged in research activities. Inter-disciplinary research activities have been undertaken in the college which proved helpful for students and staff to understand various concepts and problems with multidimensional thought process. Principal Sir has initiated an innovative activity that there is a routine presentation of these research projects in the seminar hall open to all.

Sr. No.	Name of Teacher	Title of Topic	Collaborating Department
1	Mr. K.J. Kakade	Biodiversity	Botany and Environment
2	Mr. L.B. Kakade	Tourist Places in Ahmednagar	History and Society
3	Mr. P.T Karande	Agriculture and agronomy	Geography and Environment
4	Mr. B.M. Pawar	Present Politics	Political Science and Environment
5	Mr.S.K.Thorat	Renewable Energy	Environment
6	Mr. A.D. Satpute	English	English
7	Mr. S.D. Kadlag	Environment	Physics and Environmental Science
8	Dr. R.R. Sonawane	Co-operative	History and Co-operative Society
9	Dr.Miss.D.B. Tambe	Hydrobiology	Botany and Chemistry
10	Dr. V.N. Gite	Herbal Medicine	Chemistry and Botany
11	Dr.B.K. Tapale	Hydrobiology	Zoology and Botany
12	Mr.M.S.Salunke	Chemical Synthesis	Organic Chemistry

2.6 Campus Culture and Environmental Awareness

As per the Satyaniketan' Rajur educational complex mission, the organization is committed for overall development of the student. The college has an aim to educate all students in the area of environmental studies in an interdisciplinary framework, and provide adequate training for those students who wish to pursue environmental and all types of research or environmentally-related career choices.

Action:

- 1) College has developed a system for timely assessment of the environmental issues and implementation of environmental curriculum for undergraduates.
- 2) The college undertakes various activities through effective use of ongoing schemes like N.S.S., N.C.C. and through Earn and learns Scheme. Through these schemes students work like beautification of campus, water and power management. The biodegradable and non-biodegradable waste segregated by the college was utilized for composting. To create eco-friendly awareness among the students, college arranges special programmes by

inviting the eminent personalities, who in turn train and educate stake holders. Students are encouraged to participate in eco-friendly activities by making the activities of eco-club part of the curriculum.

3) College authorities have created an atmosphere of awareness and sense of responsibility within the campus regarding environmental issues. Engaged students, faculty, staff and administration in cooperative analysis and response to these issues.

4) College has developed its own environmental policy for the campus and displayed it everywhere.

5) **“I will not point out others, I will take care of my surrounding”**

6) **Environment based activities**

Workshop	02 workshops are organized
NSS Camp	■ 7 Days N.S.S. camp was organized at Shelad
N.S.S. (300 volunteers) & N.C.C. (50 volunteers) Awareness Rallies & Implementation camps	<p>1) Every year the NSS volunteers participate in a special campaign for eco-friendly Navaratri Mahotsav at Kalsubai.</p> <p>2) At the festival time as well as at the time of Mahashivaratri fair the NSS and NCC volunteers help to maintain discipline. NSS and NCC volunteers help Rajur Police Station at the time of Ganesh Festival, <i>Mahashivaratri</i>, Navaratri <i>Mahostav</i> and other local public activities.</p> <p>3) The NSS volunteers and NCC Cadets conduct social surveys in adopted villages and extension activities tree plantations, health camps, blood donation camps, Clean India Champion etc.</p> <p>4) As a token of appreciation of good work of the NSS unit, the unit has been given award 'Best NSS Unit' in the University. The NSS programme officer was given the award of 'Best Programme Officer' (University level) in 2008-09. One of the students in our NSS unit was given 'Best NSS Volunteer' award in 2008-09 at district level. One NSS students was selected for the honor of participate in Republic Day Parade in New Delhi in the year 2009-10.</p> <p>5) The NCC and NSS Department organizes several Rallies on occasion of "Mahatma Gandhi Jayanti, World Environment Day, Yoga Day, Save Girl Child" etc for</p>

	creating awareness regarding cleanliness; garbage management.
Subject Department activities	<p>1) Department of Chemistry has offered services to farmers for Soil Testing without taking any charges. Total beneficiaries are 52 during the period of 2011-2016.</p> <p>2) Department of Zoology organized one day camp for farmers for guidance in “Apiculture” during 2012. Total beneficiaries are 25 farmers.</p> <p>3) Department of Botany organized field visit at farm and discuss about pesticide and insecticide with the farmers and convinced them to use vermin-compost. Total beneficiaries are 50 during the 2011-2016.</p> <p>4) Department of Economics has carried out socio-economic surveys in the nearby villages.</p> <p>5) During the assessment period the college has adopted 2 villages, Kelungan and Deshmukhwadi and has carried out activities such as cleanliness drives, plantation, road maintains etc.</p>
Field visits	<p>■ Field visits are organized by the department of Botany, Zoology and Geography Department</p>
Guest lectures	The College invites Environmentalist, social workers, legal experts and women’s activist to sensitize the students about social responsibility and commitments. All the programme and activities of these cells are planned under the guidance of Principal.
Awards received	<p>1) Best College Award (Rural) by Savitribai Phule Pune University. (2004-2005)</p> <p>2) Best NSS College Unit Award by Maharashtra Government. (2005-2006)</p> <p>3) Best Students Welfare Association Award by Savitribai Phule Pune University. (2010-2011)</p> <p>4) “Vanshri” Award by State Government of Maharashtra. (2011-2012)</p> <p>5) Energy Conservation and Management Award by <u>Maharashtra Energy Development Agency, Government of Maharashtra. (2012-13)</u></p> <p>6) <u>Appreciation Award by Savitribai Phule Pune University to NSS and NCC Department</u></p> <p>7) Best Researcher Award - Prof Dr Tambe D B</p> <p>8) Best Teacher- Prof. Thorat S K</p> <p>9) Sahityashri Sanman- Prof Dr Shenkar B T</p>
Publications	A total of 22 Publication by the Faculty
Community	♦ The villagers actively participate in “Shramdan” and

participation programmes	<p>“Tree Plantation” Activity during the NSS Winter Camp.</p> <ul style="list-style-type: none"> ♦ The villagers actively participate on 2nd October occasion of Mahatma Gandhi Jayanti in “Swachata Mohim”. ♦ For the tree plantation activity the competent of The Forest Department is made available essential facilities for Tree Plantation.
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Name of the research project/endowment	Name of the Principal Investigator/Co-investigator	Department of Principal Investigator	Year of Award	Amount Sanctioned	Duration of the project	Name of the Funding Agency	Type (Government/non-Government)
Impact of COVID-19 on Higher Education in Akole Taluka-A Critical Study	Dr. R. A. Kadhane	Commerce	2021-2022	15000	1 Year	Satyaniketan, Rajur	Non-Government
Emoji Chitralipi ke Social Media me Anuprayog hi Sarthakta ka Anushilan	Dr. B. T. Shenkar	Hindi	2021-2022	15000	1 Year	Satyaniketan, Rajur	Non-Government
Nathpanthi Gosavi Raval Samajyachya Lokajivanacha Abhyas	Dr. D. K. Gandhare	Marathi	2021-2022	15000	1 Year	Satyaniketan, Rajur	Non-Government
Thermal Conductivity of Different Local Woods	Prof. S. K. Thorat	Physics	2021-2022	5000	1 Year	Satyaniketan, Rajur	Non-Government
Synthesis, Characterization and Catalytic Applications of Al ₂ O ₃ Nano Particles for Organic Synthetic Transformation	Prof. S. R. Shinde	Chemistry	2021-2022	15000	1 Year	Satyaniketan, Rajur	Non-Government
Synthesis, Characterization and Catalytic Applications of ZnO Nano Particles for Organic Synthetic Transformation	Prof. S. Y. Hande	Chemistry	2021-2022	15000	1 Year	Satyaniketan, Rajur	Non-Government

- 7) Irrespective of faculty environmental science has been given equal importance through teaching, spreading awareness and implementing environment friendly practices.

ARTS

Sr. No.	Course	Special Subjects	Subject at general level
1.	B.A.	1. English 2. Marathi 3. Hindi 4. Geography 5. Economics 6. History 7. Political Science	1. English 2. Marathi 3. Hindi 4. Geography 5. Economics 6. History 7. Political Science 8. Additional English 9. Environmental Awareness
2.	M.A.	8. History	

SCIENCE

Sr. No.	Course	Special Subjects	Subject at general level
1.	B.Sc.	1. Chemistry 2. Botany 3. Physics 4. Zoology	1. Mathematics 2. Physics 3. Zoology 4. Marathi 5. Hindi 6. Environmental Awareness
2.	M. Sc.	1. Chemistry 2. Botany	7. Organic Chemistry 8. Ecology

COMMERCE

Sr. No.	Course	Special Subjects	Subject at general level
1	B.Com.	1. Cost & Works Accounting Special Paper - I 2. Cost & Works Accounting Special Paper - II 3. Cost & Works Accounting Special Paper - III	1. Compulsory English 2. Business Regulatory and Framework 3. International Economics 4. Advanced Accounting 5. Auditing and Taxation 6. Financial Accounting 7. Business Economics (Micro.) 8. Banking and Finance 9. Marketing & salesmanship 10. Computer Fundamental 11. Marathi or Hindi 12. Environmental Awareness 13. Business Communication 14. Business Management 15. Corporate Accounting 16. Element of Company Law 17. Business Economics

2.	M.Com..		(Macro.)
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- 8) The library has a stock of 18,850 books and 45 printed journals. The college library has Internet facility and access to nearly 6,000 e-journal and 97,000 e-books. These are available to all faculty members and students. The library has NLIST INFLIBNET facility

3. General actionable points:

- The College should improve its monitoring and reporting of energy, water and other resource usage and provide information to campus users.
- College should encourage students to undertake a project to create college environment inventory. This would supply the campus with current status of environmental concerns and enable the College to look into areas where they can improve and accordingly an action points can be formulated.
- The EAC (Environment Advisory committee) should make decisions with respect to continuous input, interests and commitments of the students, participating faculty, and administration. The college should continue to support the work of the EAC and should ensure that its recommendations are considered carefully and in a timely manner through the appropriate chain of command.
- As per modern understanding regarding environment, local trees should be planted from biodiversity (Birds, insects, pollinators etc.) point of view.

4. Conclusions

The findings of this report show that the college performs fairly well on sustainability issues. It does consider the environmental impacts of most of its actions and makes a concerted effort to act in an environmentally responsible manner. In conversations with faculty, staff, and administration at the college, a major theme has been the improvements made over the last many years in how the college performs environmentally. Even though the college does perform

fairly well, the actionable points in this report highlight many ways in which the college can work to improve its actions and become a more sustainable institution.

In this section, the actionable points are ranked in terms of priority. We have three categories based hierarchically on immediacy, importance, and potential impact: high priority, medium priority, future and minor concerns.

4.1 The high priority actionable points are:

- Continue working towards composting the post-consumer food waste generated by the canteen areas and student's biodegradable waste.
- Adopt Environmentally Responsible Purchasing Policy, and work towards creating and implementing a strategy to reduce the environmental impact.
- There should be value education modules-based action programs to inculcate environment protection as one of the value.

4.2 The medium priority actionable points are:

- Communicate with computer hardware suppliers to find out what the ways to recycle e-waste materials.
- Develop explicit policies concerning the impact of new construction on impervious surface area and runoff.
- Continue to support the work of the EAC and should ensure that its suggestions are considered carefully and in a timely manner through the appropriate chain of command.

4.3 The minor and future concerns are:

- Continue expanding interpretive program to better educate students about natural history and college role in preserving biodiversity and optimum utilization of natural resources.

Annexure

1. Environment policy

- I. **" I will not point out others, I will take care of my surrounding"**

Environment Policy

We are committed to protect Environment, Occupational Health and Safety of all through our work and activities. We Endeavour to...

Institution is committed to reduce its impact on the environment. We will strive to improve our environmental performance over time and to initiate additional projects and activities that will further reduce our impacts on the environment.

Our commitment to the environment extends to our students, our staff, and the community in which we operate. We are committed to:

- 1) Comply with all applicable environmental regulations.
- 2) Prevent pollution whenever possible.
- 3) Minimizing waste by reviewing purchasing practices and segregating wastes for reuse and recycling.
- 4) Purchase and use environmentally responsible (recyclable, refurbished, etc.) products from environmentally responsible suppliers (i.e. suppliers who emphasize the need for renewable energy supplies).
- 5) Train all of our staff on our environmental program and empower them to contribute and participate.
- 6) Continually improve over time by striving to measure our environmental impacts and by setting goals to reduce these impacts each year.

3. Water monitoring results

4. Class Time table showing environmental subject

5. Yearly planner

6. Plant list

7. Future plans

8. Student project list

8. Photo Gallery – kindly provide photographs if available as per the captions



Solar Water Heater at Ladies Hostel



Solar Street Light



Solar Cells at Science Building




Solar Cells at Library Building



Power Grid

Energy Bill of Power Grid



Maharashtra State Electricity Distribution Co. Ltd.

BILL OF SUPPLY FOR THE MONTH OF **Jan-2021**

CIN: U40109MH2005SGC163645

GSTIN: 27AAECM2933K1ZB

Website: www.mahadiscom.in

HSN CODE: 5201

AHMEDNAGAR CIRCLE - 570 SANGEMNER DIVISION - 573 RAJUR - 584 BU 6742 Bill No: 0000000000

Consumer No. 142820012223

Consumer Name: THE PRINCIPAL, ARTS AND COMMERCE COLLEGE

Address: RAJUR, TAL. AKOLE

DIST. AHMEDNAGAR

SOLAR NET METER (10.00 KW)

Due Date: 15/02/2021

IF PAID UPTO: 22/02/2021

IF PAID AFTER: 02/03/2021

Last Receipt No./Date: /15-02-2020

Last Month Payment: 0.00

Village RAJUR Pin Code: 422604

Mobile No: 9890000009

Connected Load (KW): 0.00

Contract Demand (KVA): 0.00

Tariff: 73 LT-VII B I DTC: 4584085 GIS Dto/Pole: PC-MR-ROUTE-SEQ 00-19-0101-60

Category: Public Services Other

Supply at: LT

Prev. Highest (Mth):

Security Deposit Held Rs. 10945.05

Bank Guarantee Rs.:

ADD. S.D. Demanded Rs.: 0.00

S.D. Arrears Rs.: 2670.00

BILLING HISTORY

Bill Month	Units	Bill Demand (KVA)	Bill Amount
Dec-2020	0	0	362.00
Nov-2020	0	0	362.00
Oct-2020	0	0	362.00
Sep-2020	0	0	362.00
Aug-2020	0	0	362.00
Jul-2020	0	0	362.00
Jun-2020	0	0	362.00
May-2020	1047	0	27392.1
Apr-2020	1139	0	12156.60
Mar-2020	1139	0	12484.21
Feb-2020	1139	0	12287.16
Jan-2020	1202	0	12780.70

CUSTOMER CARE Toll Free No.

1912, 1600-233-3435,

1800 102-3435

Rule & Procedure for Consumer Grievances Redressal is available at www.mahadiscom.in/consumer-portal-CGRF

Instead of Printed bill, register for E-bill and avail Rs. 10 per bill as a "Go-green" discount.

For registration visit at: www.mahadiscom.in/consumer-portal->Quick access->Go-green request

Important Message

- Consumers can pay online using Net banking, Credit/Debit cards at https://www.mahadiscom.in/online-payment after registration.
- Submit/ update your E-mail id and mobile number to Circle Office for receiving prompt alerts through SMS.
- Submit/ update your PAN & GSTIN to circle office with copies of PAN & GSTIN for verification.

Consumer No. 142820012

CURRENT CONSUMPTION DETAILS

Reading Date	KWH	KVAH	KVAH (LAG)	KVAH (LEAD)	KW (MD)	KVA
Current: 02/02/2021	8763.00	0.00	0.00	0.00	0.00	
Previous: 02/01/2021	7716.00	0.00	0.00	0.00	0.00	
Difference	1047.00	0.00	0.00	0.00	0.00	
Multiplying Factor	1.00	1.00	1.00	1.00	1.00	
Consumption	1047.00	0.00	0.00	0.00	0.00	
Add if L.T. Metering	0.00	0.00	0.00	0.00	0.00	
Adjustment	-1047.00	0.00	0.00	0.00	0.00	
Assessed Consumption	0.00	0.00	0.00	0.00	0.00	
Total Consumption	0.00	0.00	0.00	0.00	0.00	

BILLING DETAILS

Billed Demand (KVA)		Rs.	362.00
Assessed P.F.	0.0000	Avg. P.F.	
Billed P.R.	0.0000	L.F.	0
Consumption Type	Units	Rate	Charges Rs.
Industrial	0.00		0.00
Residential	0.00		0.00
Commercial	0.00		0.00
E.D. on (Rs.)	Rate %	Amount Rs.	
0.00	0.00	0.00	
0.00	0.00	0.00	
362.00	21.00	0.00	
Tariff	Units	Demand	Charges Rs.
0000 Hrs-0600 Hrs & 2200 Hrs-2400 Hrs	0	0	0.00
0600 Hrs-0900 Hrs & 1200 Hrs-1800 Hrs	0	0	0.00
0900 Hrs-1200 Hrs	0	0	0.00
1800 Hrs-2200 Hrs	0	0	0.00
Amount in Words	SEVEN HUNDRED NINETY ONLY		

DEBIT BILL ADJUSTMENT

TOTAL CURRENT BILL

Current Interest: 11/02/2021

Principal Arrears

Interest Arrears

Total Bill Amount (Rounded) Rs. 79

Delayed Payment Charges Rs.

Amount (Rounded) Payable 2021 80

SOLAR NET METER CONSUMPTION DETAILS

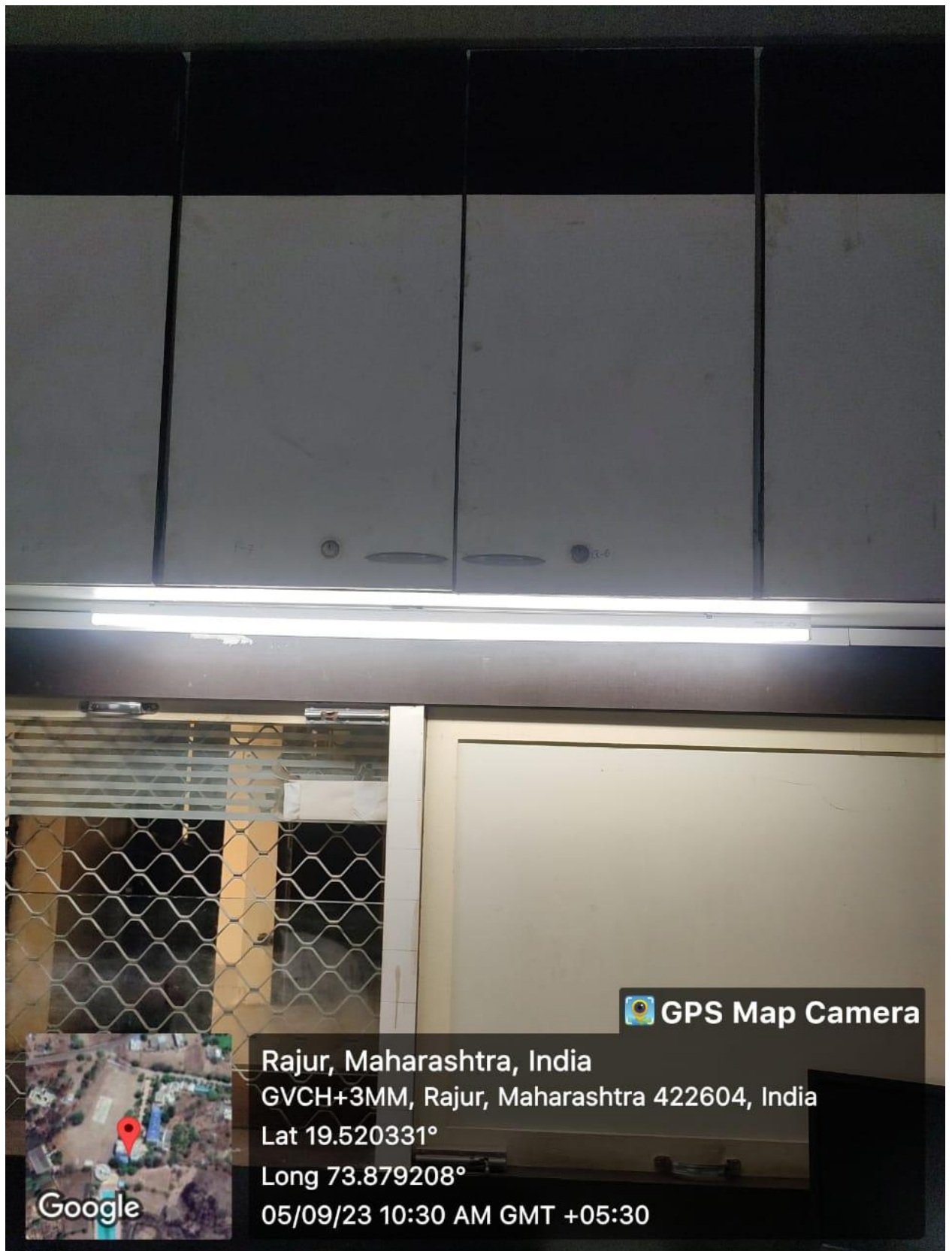
SOLAR	IMPORT			EXPORT			GENERATION	
	CURRENT READING	PREVIOUS READING	Units	CURRENT READING	PREVIOUS READING	Units	CURRENT READING	PREVIOUS READING
TOTAL	8763.00	7716.00	1047.00	8691.00	8496.00	405.00	12325.00	11921.00
Offset 1047.00	Previous Banked 770.00			Current Banked 128.00			Billed 0.00	

CONDITIONS

- The total bill amount of the bill may be remitted by a Crossed Demand Draft/Cheque drawn in favor of "Maharashtra State Electricity Distribution Co. Ltd." When Deposit is demanded separate Cheque/Bank Draft should be sent.
- The current bill is payable within fifteen days from the date of issue of the bill. Even if there is any discrepancy in the bill or any other clarification needed, consumers are requested to pay the billed amount in full provisionally or under protest subject to review and subsequent adjustment, so that payment of delayed payment charges is not required.
- This bill is issued subject to the provision of the "Conditions and Miscellaneous charges for supply of Electrical Energy" of the company.
- Please quote the Consumer Number on the back of the Cheque. The payment of this bill should be made at Company's office only.



Uninterrupted Power Supply



Use of LED Lights





Solid Waste Management

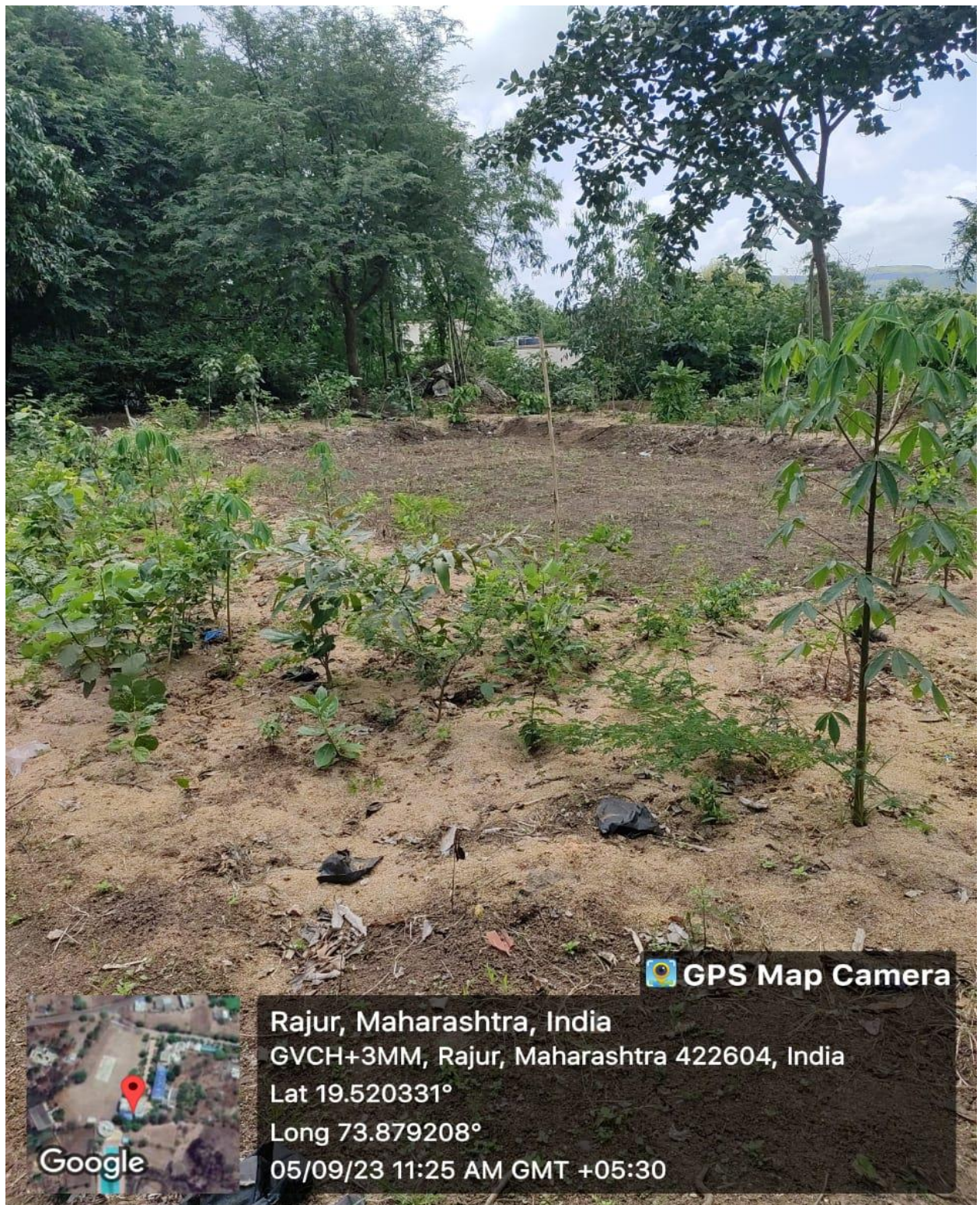


Dustbin in Campus



Vermicompost Project

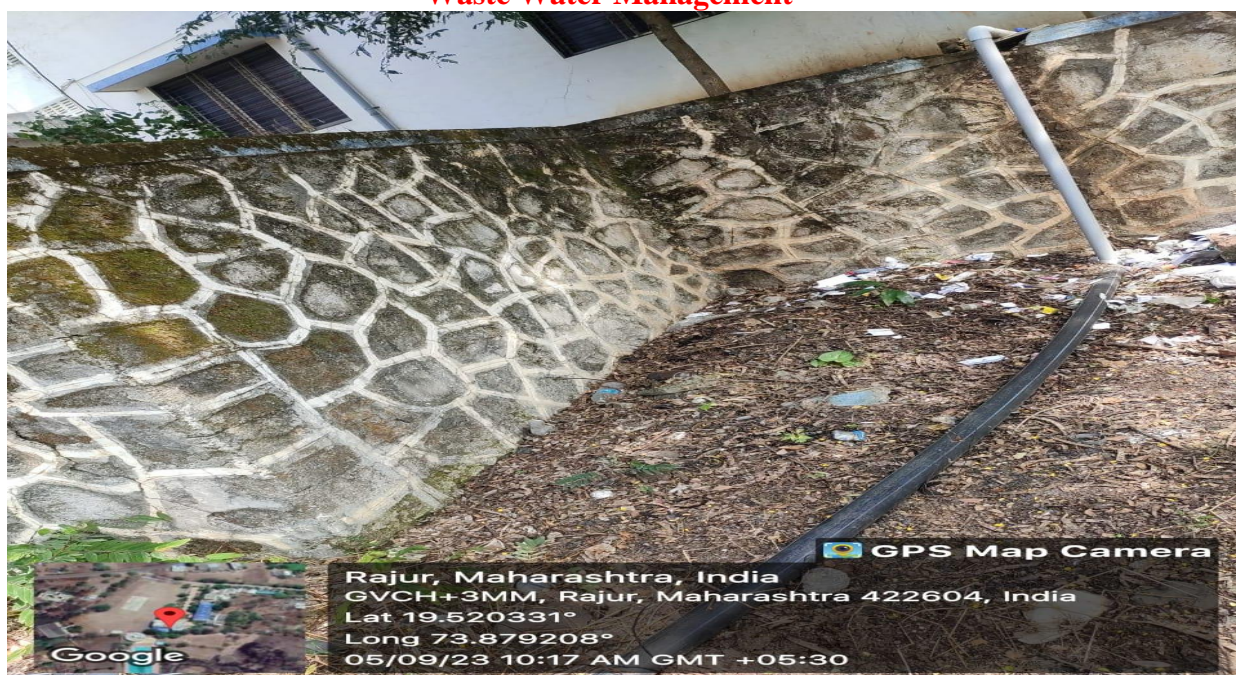


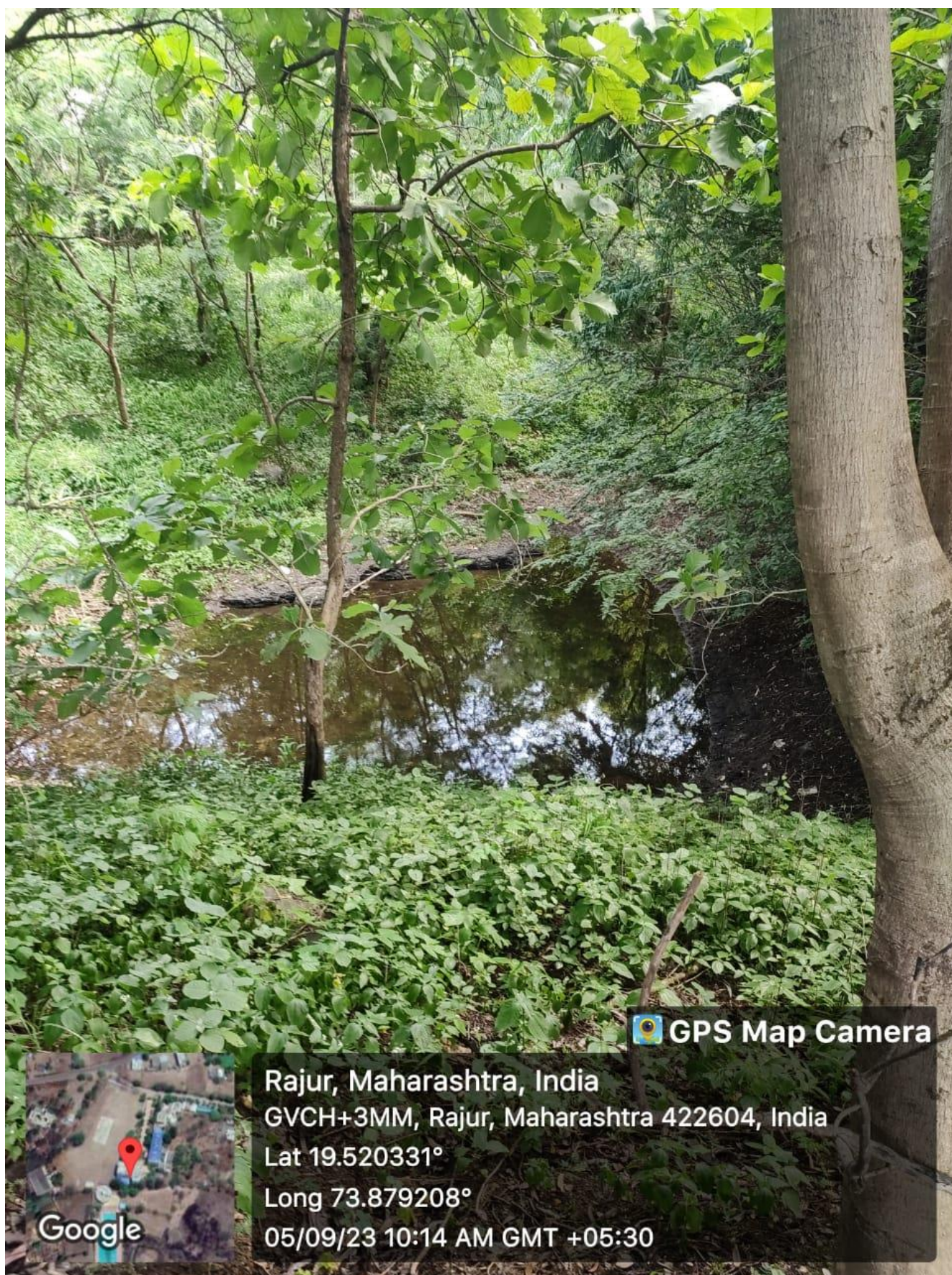


Use of Vermicompost to Miyawaki Forest Project

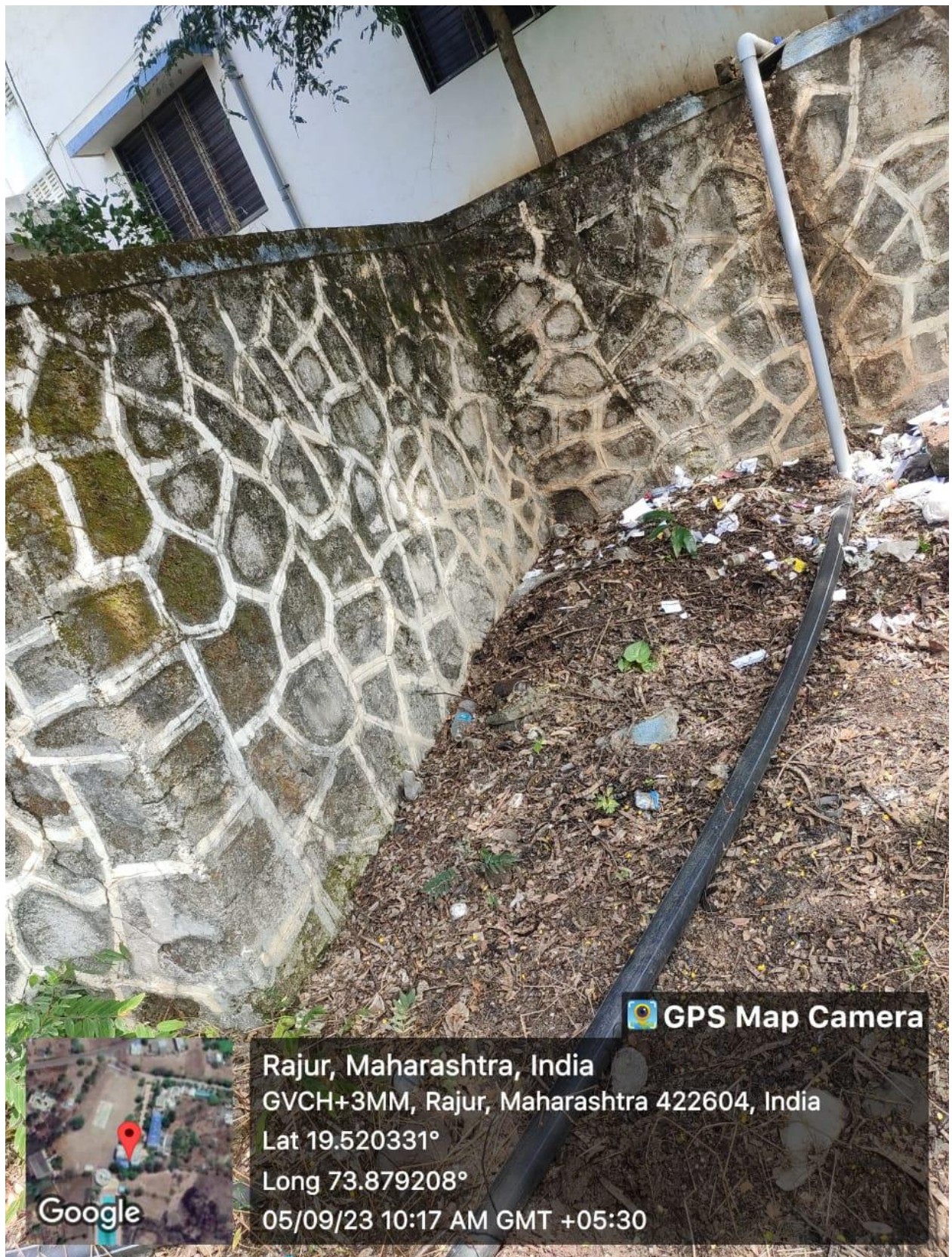


Waste Water Management

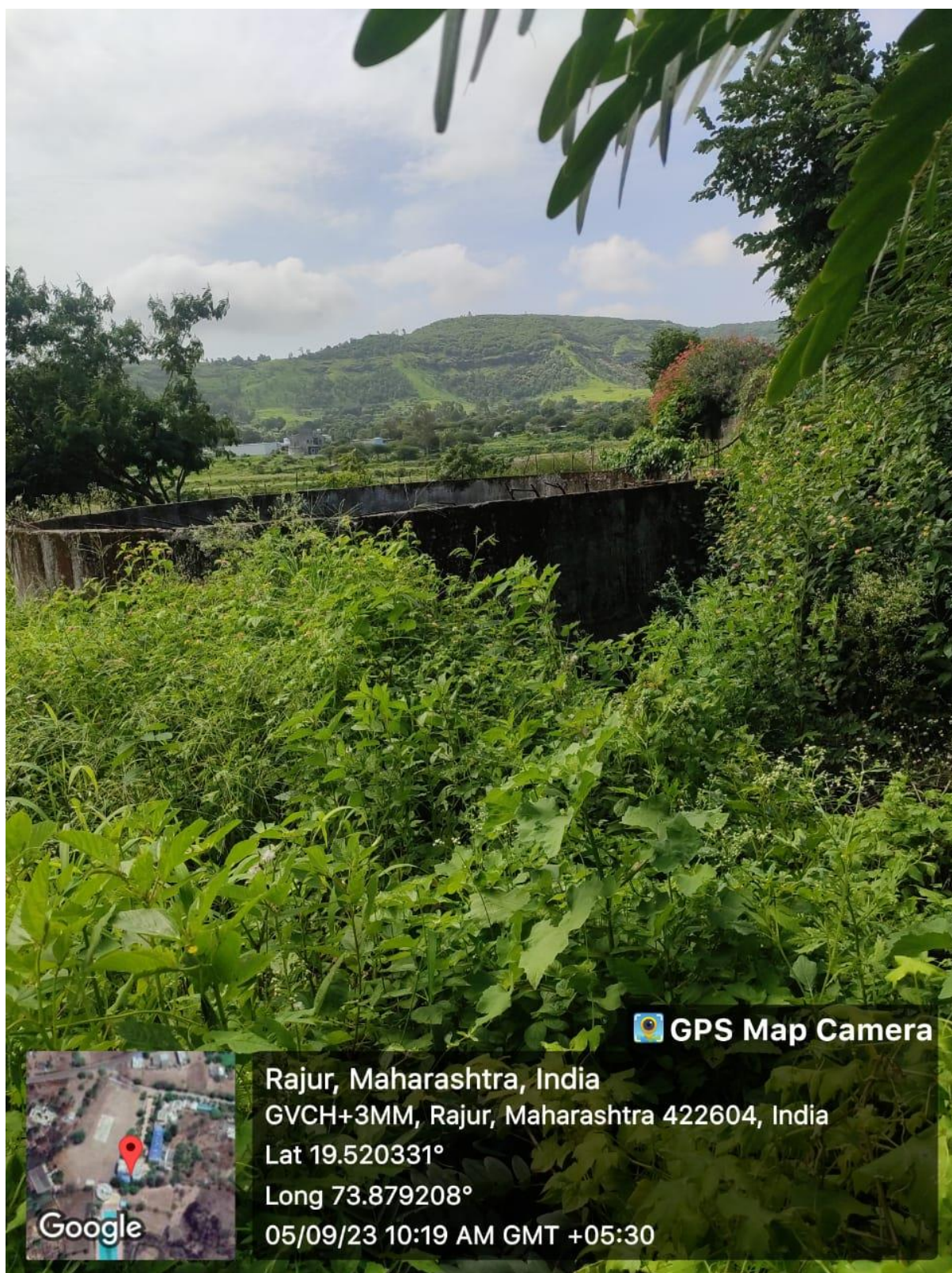




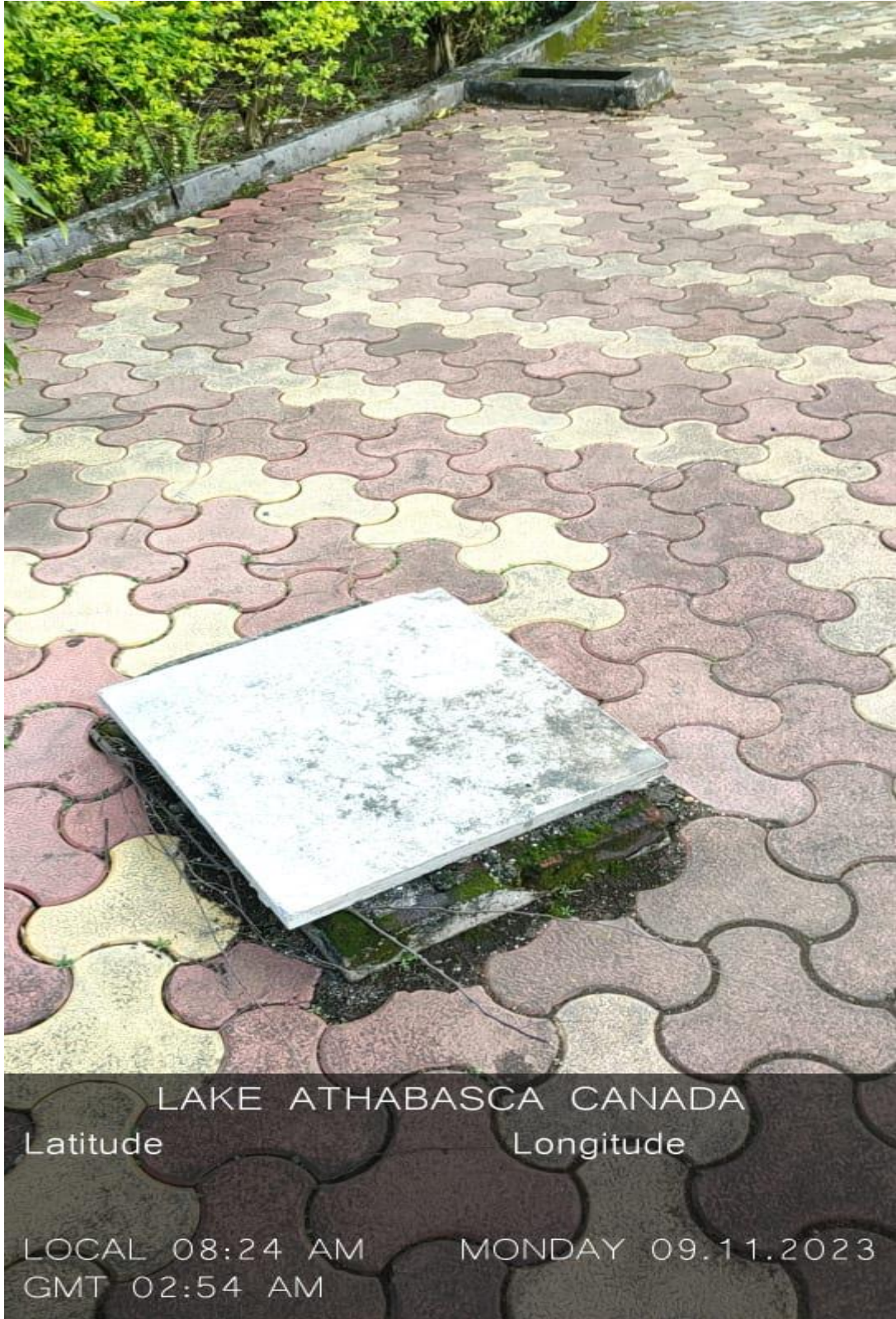
Waste water discharge in Agriculture Pond



Rain Water Harvesting



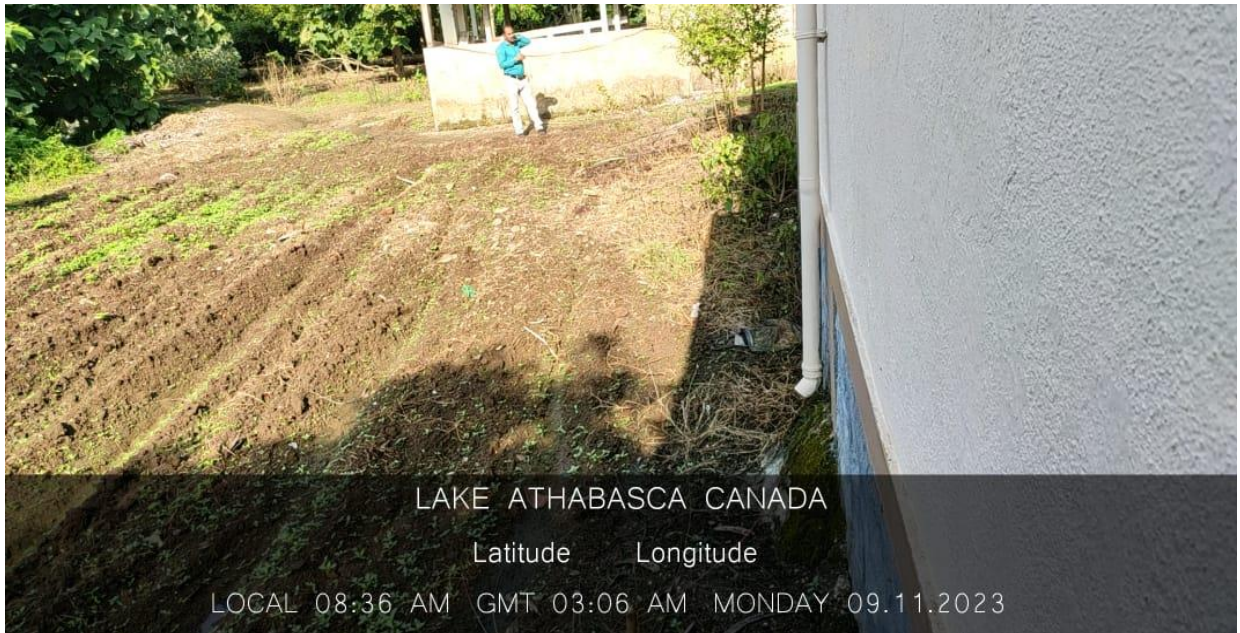
Charging of Well

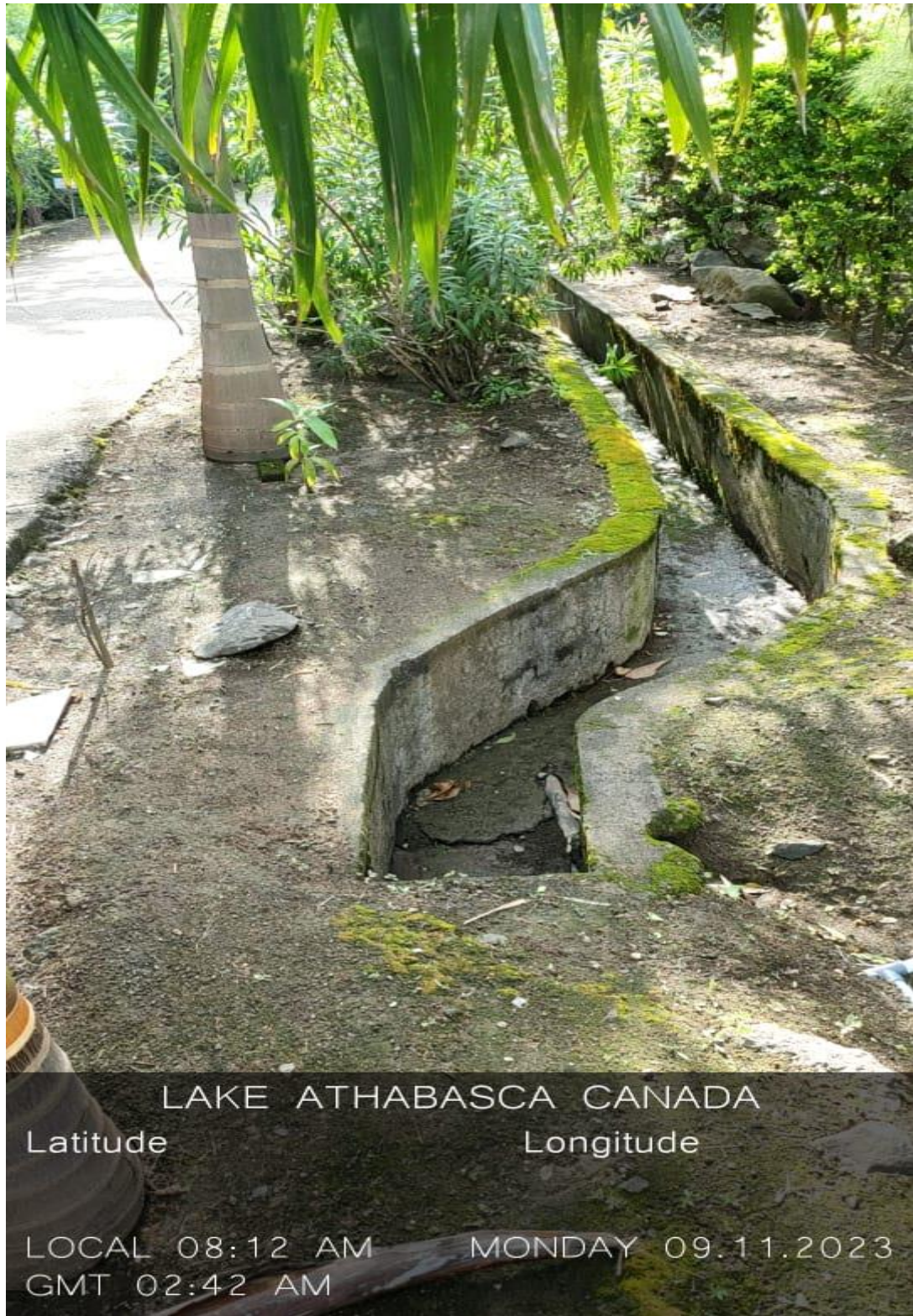


Rain Water Management



Waste Water to Agriculture Field





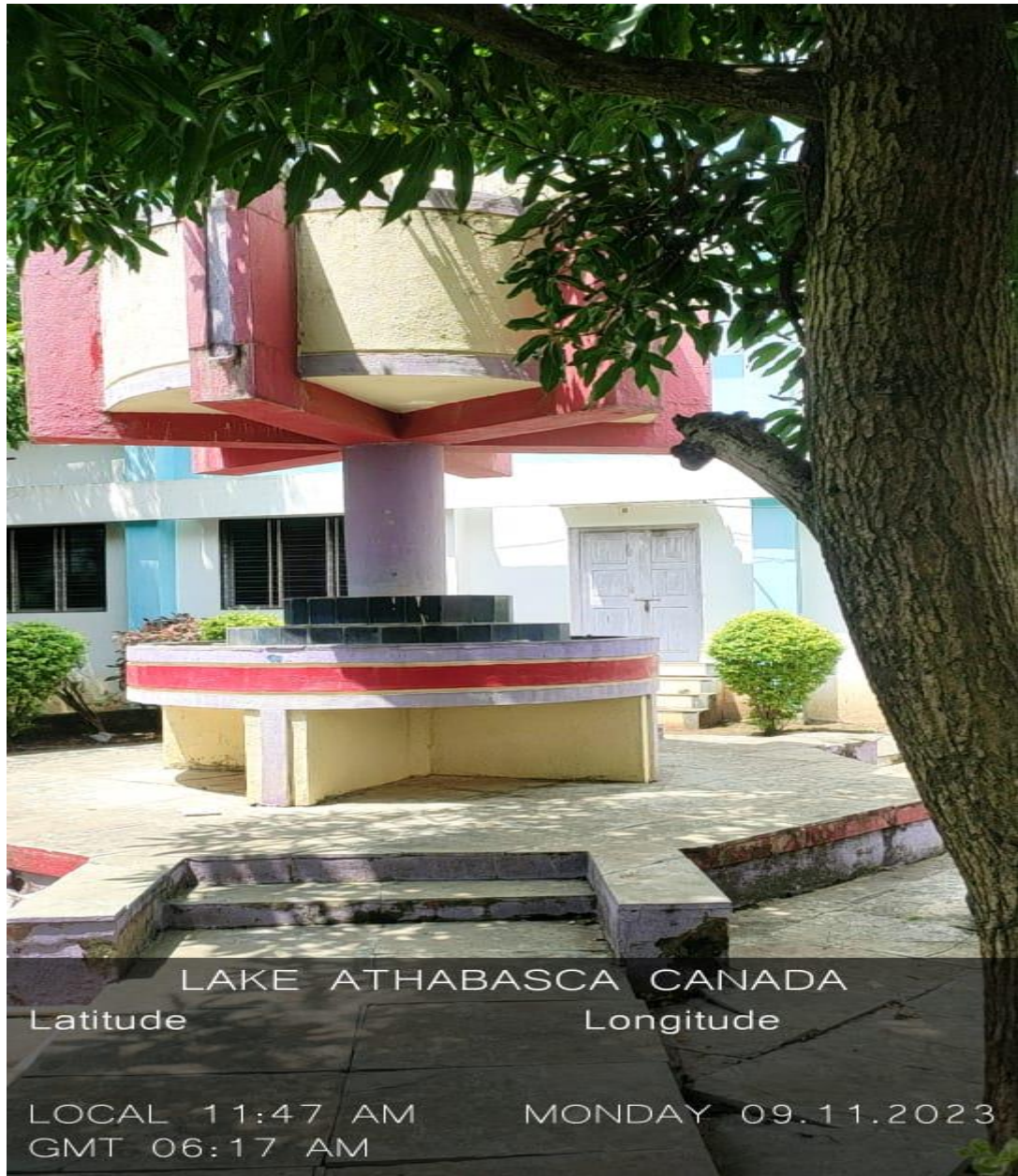
Rain Water Management



Water Purifier



Safe Drinking Water



Drinking Water Tank



Water Storage Tank



Security Cabin



Restricted Entry for Vehicles



LAKE ATHABASCA CANADA

Latitude

Longitude

LOCAL 08:01 AM

MONDAY 09.11.2023

GMT 02:31 AM

धुम्रपानास बंदी

आरोग्य आणि कुटुंब कल्याण मंत्रालय, भारत सरकार यांचे दि. 19 जानेवारी, 2010 रोजी प्रसिध्द केलेल्या राजपत्रानुसार महाविद्यालयाच्या 100 यार्ड परिसरात सिगारेट, तंबाखू व तंबाखूजन्य वस्तुंची विक्री व सेवन करण्यास बंदी घालण्यात आली आहे.

वरील नियमानुसार महाविद्यालयाच्या 100 यार्ड परिसरात सिगारेट, तंबाखू व तंबाखूजन्य वस्तुंची विक्री अथवा सेवन करतांना आढळल्यास सिगारेट आणि तंबाखू उत्पादित अधिनियम 24 अन्वये रू. 200/- कायदेशीर दंड आकारला जाईल.

प्राचार्य



GPS Map Camera

Rajur, Maharashtra, India

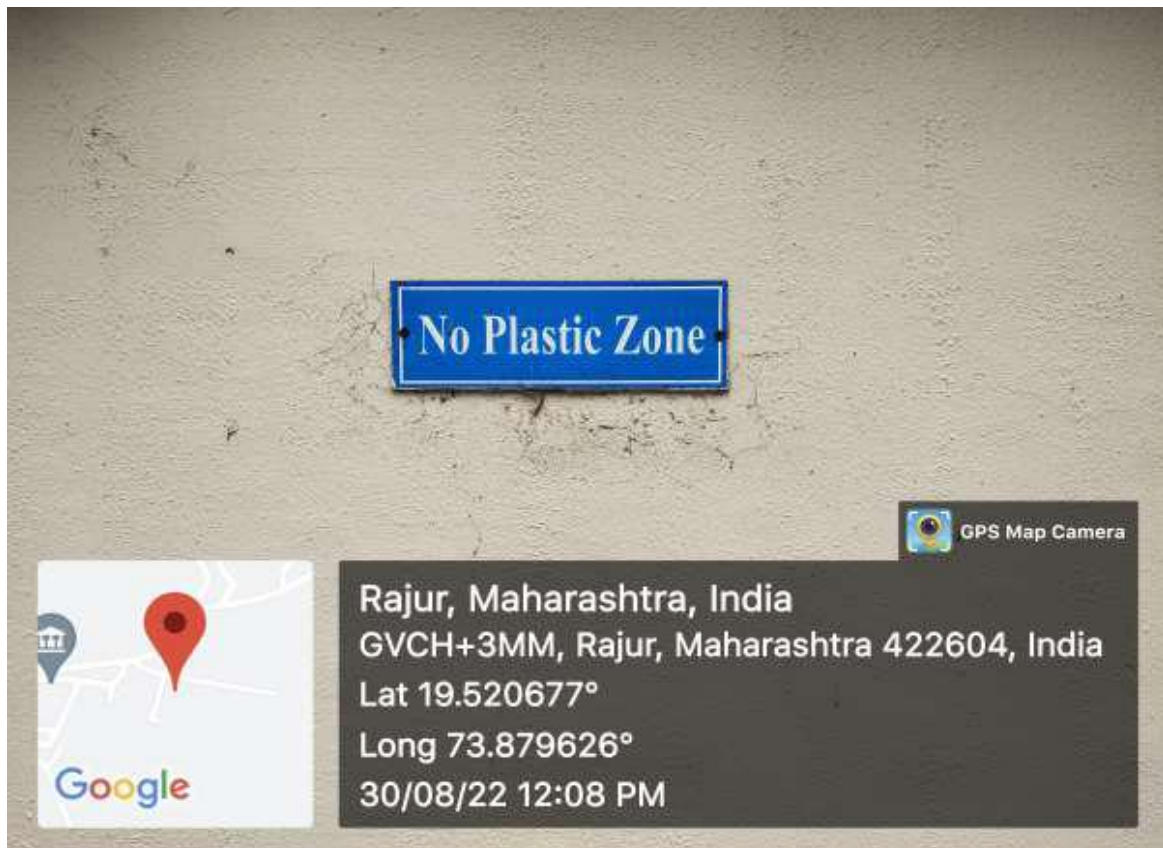
GVCH+3MM, Rajur, Maharashtra 422604, India

Lat 19.520331°

Long 73.879208°

05/09/23 10:37 AM GMT +05:30

Prohibition Notice



Use of Plastic Ban in Campus



Plastic Segregation

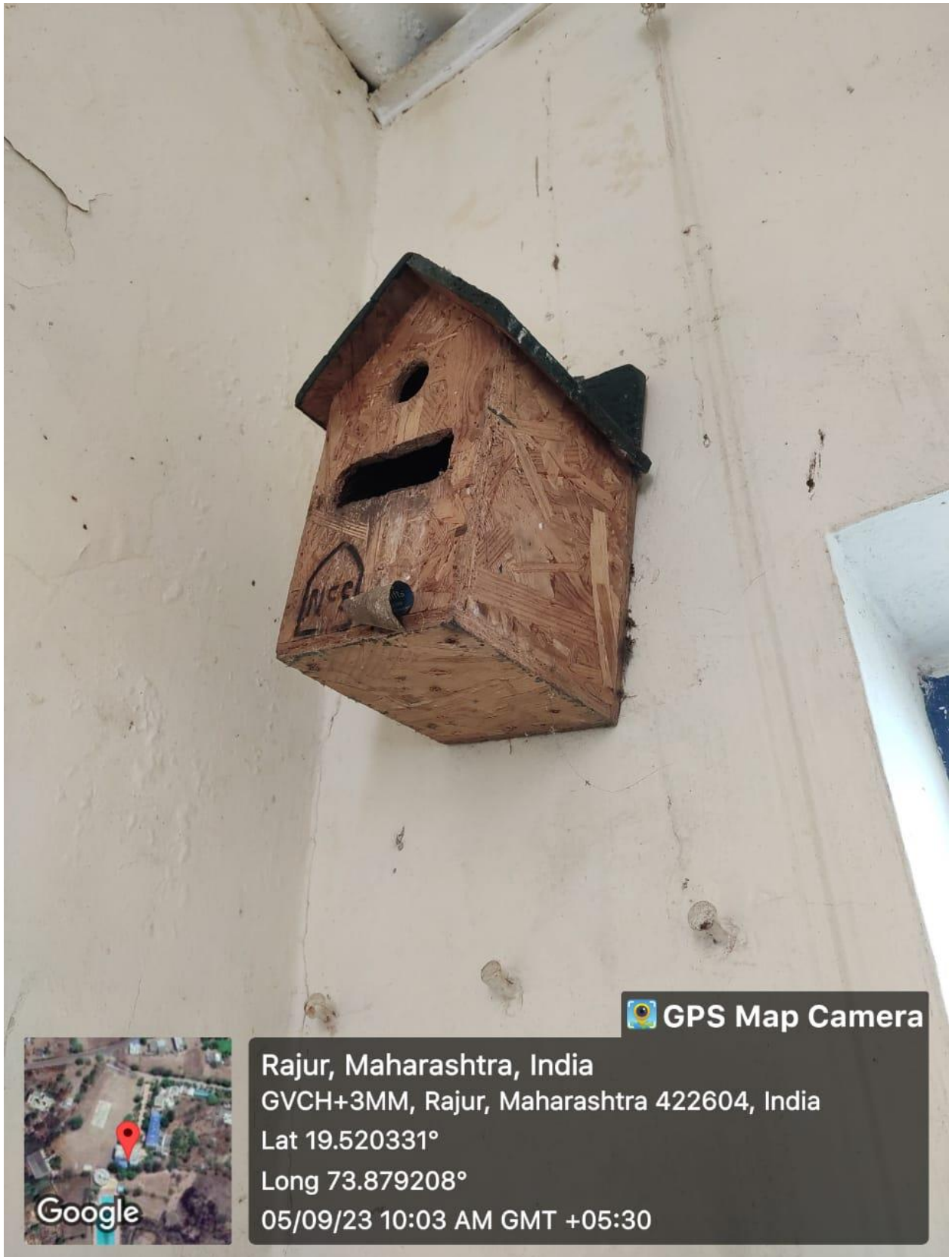


Tree Plantation





Organic Farming



Conservation of Birds



LAKE ATHABASCA CANADA

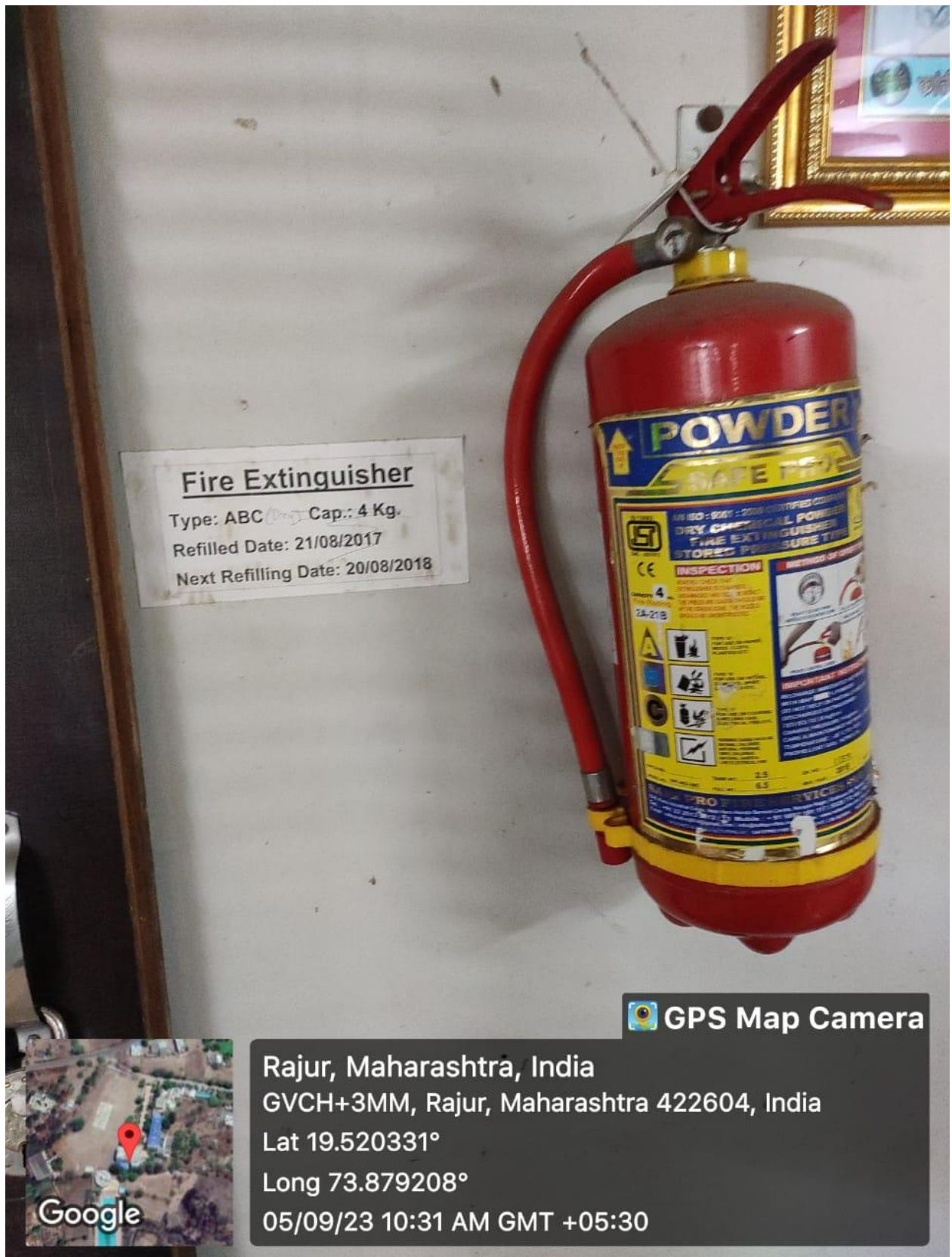
Latitude

Longitude

LOCAL 08:32 AM

MONDAY 09.11.2023

GMT 03:02 AM



GPS Map Camera

Rajur, Maharashtra, India
GVCH+3MM, Rajur, Maharashtra 422604, India
Lat 19.520331°
Long 73.879208°
05/09/23 10:31 AM GMT +05:30

Use of Fire Extinguisher

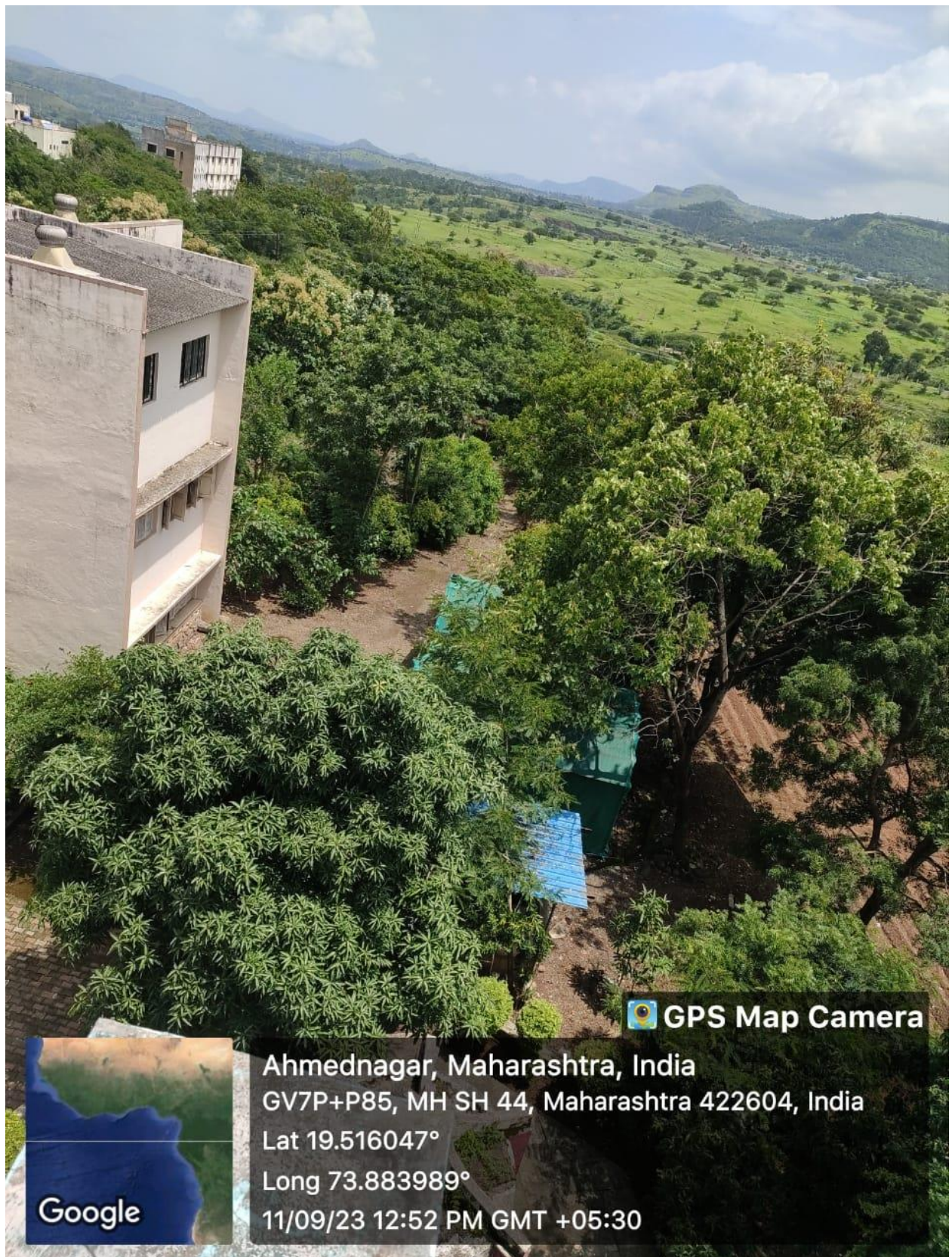


Sanitizer Machine



Green Campus





 GPS Map Camera

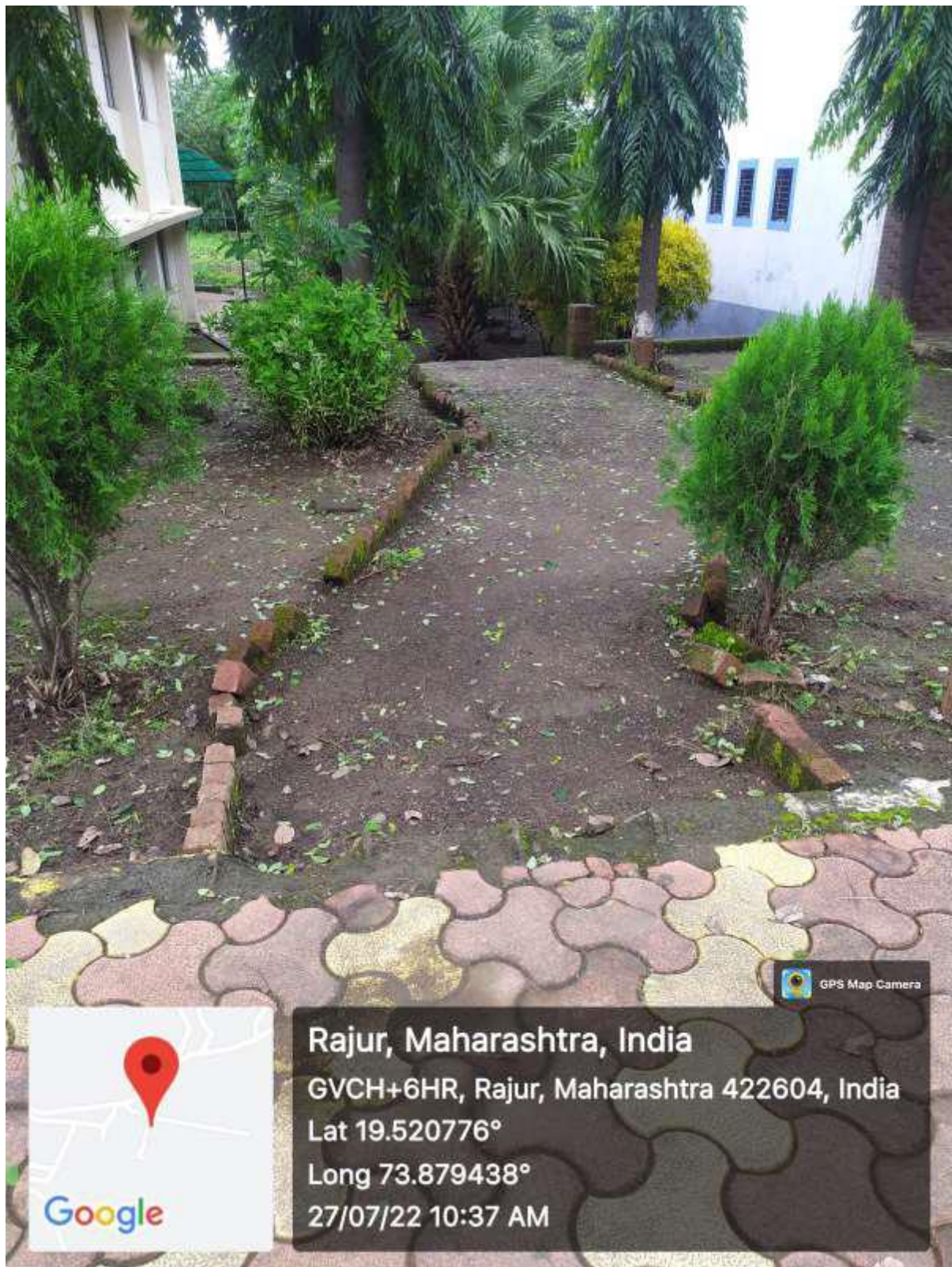
Ahmednagar, Maharashtra, India
GV7P+P85, MH SH 44, Maharashtra 422604, India
Lat 19.516047°
Long 73.883989°
11/09/23 12:52 PM GMT +05:30

Google



Ramp for Disabled Students





Pedestrian



Abrus precatorius L.

C

Local Name: गुंज

Habit: Climber

Family: Fabaceae

Habitat: Grows with support

Key characters: A beautiful climber with compound leaves, leaflets small, in pairs; flowers pinkish purple in colour fading white on maturity; pods 2-4 cm long, contains 3-5 scarlet seeds

Flowering Season: Mid Monsoon

Uses: Leaves are used in treatment of rheumatism. Seeds are used externally in skin diseases and ulcers

Flora of College Campus



Abutilon indicum (L.) Sweet

C

Local Name: मुद्रा, पेटारी

Habit: Shrub

Family: Malvaceae

Habitat: On hill slope with shrubs

Key Characters: Leaves ovate in shape, cordate at base, margins dentate. Flowers yellow; fruits globular with compartments containing brownish-black seeds.

Flowering Season: Late Monsoon

Uses: Roots used in treatment of fever and leprosy. Decoction of leaves used in gonorrhoea and bronchitis



Acacia auriculiformis A. Cunn. ex Bth.

Ex

Local Name: ऑस्ट्रेलियन बाभूळ

Habit: Tree

Family: Mimosaceae

Habitat: Planted, spreading everywhere

Key Characters: A tree native of Australia, bark whitish, leaf bases flattened to form leaf like structure called phyllode; leaves small, compound; flowers in spikes, yellow; fruits spirally coiled, brown

Flowering Season: Mid Monsoon

Uses: Cultivated along roadsides for ornamental purpose. Planted on waste places for reclamation. It is a good fire wood tree.



***Acacia catechu* (L.f.) Willd.**

C

Local Name: कात

Habit: Tree

Family: Mimosaceae

Habitat: Along the hill slopes

Key Characters: Leaves two pinnate, Spines short & hooked, Leaflet sessile, Flowers in axillary peduncle spikes & fragrant, Pods flat, brown & beaked

Flowering Season: Mid Monsoon

Uses: Kaat, an extract of its heartwood used as ingredient for pan for typical flavour and red colour. Leaves are used as goat fodder, wood is used for furniture. Heartwood extract is used for dyeing and lather tanning.



***Acacia chundra* (Roxb. ex Rottl.) Willd.**

C

Local Name: खैर

Habit: Tree

Family: Mimosaceae

Habitat: Along the hill slopes

Key Characters: small Tree with hooked spines; bark dark brown colour; Flowers pale yellow in spikes; pod flat, brown, beaked at apex.

Flowering Season: Throughout the year

Uses: The wood is used for shipbuilding and extraction of tannin. It is also used as food for bees. The tree is preferred nesting site for the scaly breasted munia.



***Acacia concinna* (Willd.) DC.**

R

Local Name: शिकेकाई

Habit: Shrub

Family: Mimosaceae

Habitat: Hill slopes

Key Characters: Leaves two pinnate, leaflets sessile, leaner, unequal, sensitive, rachis prickly, Flowers in globose heads on fascicled peduncles, fragrant, Pods Wrinkled, depressed, brown

Flowering Season: Throughout the year

Uses: Pods are used for hair care, bark powder are used as detergent in traditional system of medicine. Also the chutney is prepared from the leaves because of its acidic taste.



***Acacia farnesiana* (L.) Willd.**

Oc

Local Name: रामकाठी बाभूक, देव बाभूक **Habit:** Tree

Family: Mimosaceae **Habitat:** Plains and Hedges.

Key Characters: Leaves pinnate, leaflet sessile, oblong, and oblique at base, Spines stipular, sharp, flowers in globose heads on axillary peduncles, Fragrant, Pods cylindrical, turgid, brown.

Flowering Season: Mid Monsoon

Uses: Flowers are used to prepare perfumes. The pods are used as food by many tribes also used in various systems of medicines for skin diseases.



***Acacia leucophloea* (Roxb.) Willd.**

C

Local Name: हिवर **Habit:** Tree

Family: Mimosaceae **Habitat:** Along the hill slopes

Key Characters: Leaves two pinnate, leaflet sessile, linear-oblong, spines stipular & variable in length, flowers in globose head in large terminal panicles.

Flowering Season: Mid Monsoon

Uses: The bark is used in the traditional system of medicine on various diseases. It is good reforestation species for poor and dry soil. Germinated seed are cooked and eaten as vegetables.



***Acacia nilotica* (L.) Willd. ex Del. ssp. *indica* (Benth.) Brenan**

C

Local Name: Babhal **Habit:** Tree

Family: Mimosaceae **Habitat:**

Key Characters: A common medium size tree growing in dry places, bark cracked dark brown. Leaves compound with 10-25

pairs of leaflets. Flowers yellow, in globose heads. Pods green, flat, beaked, shortly stalked. Seeds 2–12 per pod.

Flowering Season: Summer

Uses: Bark yields dye, gum and tannin. Leaves used as fodder.



***Achyranthes aspera* L.**

C

Local Name: आघाडा

Habit: Herb

Family: Amaranthaceae

Habitat: Along the road side in grasses, shady areas

Key Characters: Common herbs; leaves opposite, whitish under; flowers in spikes, yellow. Grows as weed

Flowering Season: Late Monsoon

Uses: A sacred herb used in puja. Aghada plants are used medicinally for several diseases such as piles, cold, cough, snake bites, toothache and rheumatism etc. Ash of plant used in dyeing.



***Aerva lanata* (L.) Juss.**

C

Local Name: कापूर माधुरी

Habit: Herb

Family: Amaranthaceae

Habitat: In grasses and along small bushes

Key Characters: Prostrate; leaves pubescent and white cottony beneath; flowers greenish-white.

Flowering Season: Winter

Uses: Whole plants are edible and also used as spiritual and also used in ayurveda.



***Aeschynomene americana* L.**

C

Local Name:

Habit: Herb

Family: Fabaceae

Habitat: Mixed with medium sized grasses and herbs

Key Characters: Naturalised exotic herb, Leaves alternate, pinnate, rachis hispid, flowers in axillary racemes

Flowering Season: Late Monsoon

Uses: The plant is widely used as green manure.



***Agave americana* L.**

C

Local Name: घायपात

Habit: Shrub

Family: Agavaceae

Habitat: Plains

Key Characters: Naturalised exotic plant, leaves in dense rosette, linear, lanceolate, margins spinous, apical spine sharp, flower crowded in pyramidal panicles.

Flowering Season: Summer

Uses: Sturdy plant Good quality of preventing soil erosion



***Ageratum conyzoides* L.**

Ex W

Local Name: ओसाडी

Habit: Herb

Family: Asteraceae

Habitat: Commonly found in medium size grasses

Key Characters: Small annual herb, leaves opposite, ovate, crenate, hairy, flowers in terminal corymbs, usually white, often blue.

Flowering Season: Mid monsoon

Uses: This plant is toxic as used insecticide and Pesticide.



***Ailanthus excelsa* Roxb.**

C

Local Name: महारुख

Habit: Tree

Family: Simaroubaceae

Habitat: Plains and slopes.

Key Characters: Large deciduous tree, Leaves alternate, pinnate, leaflet alternate, variable in shape, unequal at base, toothed, flowers in large branched panicles, fruit winged, lanceolate, reddish brown, reticulate, single seeded

Flowering Season: Winter

Uses: Grows in wide environmental conditions through sucker and planted as avenue tree along road side.



***Albizia lebbbeck* (L.) Willd.**

C

Local Name: काळा शिरीष

Habit: Tree

Family: Mimosaceae

Habitat: Along the hill slopes and on plains

Key Characters: Stem erect straight, branches spreading, bark rough grey, Leaves tow pinnate, leaflet ovate, light green, Flowers in globos heads, greenish white, fragrant , pods thin flat, pale orange yellow.

Flowering Season: Summer

Uses: It includes environmental management, forage, medicine and wood. It is also cultivated along roadside as avenue tree.



***Alstonia scholaris* R. Br.**

PI

Local Name: सप्तपर्णी

Habit: Small tree

Family: Apocynaceae

Habitat: Planted along the road

Key Characters: Bark grey, branches with milky juice, whorled, Leaves in whorl, coracious, obovate, obtuse, shining, finely nerved, Flowers in umbellately branched capital cymes, Follilcles cylindrical

Flowering Season: Winter

Uses: Used to make slates in olden time, having religious importance. Bark paste is used for the treatment of diabetes, leaves and roots are also medicinally important. wood is used for box packing.



***Alternanthera pungens* Kunth.**

W

Local Name: चाबूक काटा

Habit: Herb

Family: Amaranthaceae

Habitat: Open areas, in grasses

Key Characters: Prostrate Herb; leaves obovate; Flowers greenish-white; seeds discoid- lenticular.

Flowering Season: Mid Monsoon

Uses: It is weed.



***Amaranthus polygonoides* L.**

C

Local Name:

Habit: Herb

Family: Amaranthaceae

Habitat: Common in grasses

Key Characters: Sparingly branched Herb; Leaves lanceolate; Flowers pale-green; seeds discoid, black smooth.

Flowering Season: Mid Monsoon

Uses: It is common weed in open situations.



***Amaranthus spinosus* L.**

C

Local Name: काटेमाथ

Habit: Herb

Family: Amaranthaceae

Habitat: Mixed in grasses

Key Characters: Erect herb; leaves ovate or oblong; Spike pale green; seed shining, discoid and brown in colour.

Flowering Season: Mid Monsoon

Uses: historically it is used as a grey dye for cloth. The plant is used as value food in many countries. it is also used in Ayurvedic system of medicines and pharmaceutical industries.



***Amaranthus tricolor* L.**

C

Local Name: तांदुळजा

Habit: Herb

Family: Amaranthaceae

Habitat: Mainly along the crop fields

Key Characters: Small Erect herb; leaves ovate or elliptic; Spike greenish- yellow; seed is smooth and black in colour.

Flowering Season: Late monsoon

Uses: This plant is cultivated as ornamental plant and also eaten as salad vegetables.



***Ammannia baccifera* L.**

C

Local Name: भार- जांभळ

Habit: Herb

Family: Lythraceae

Habitat: In wet or waterlogged areas

Key Characters: Erect herb in wet post harvested rice fields along stream bank; leaves oblong or lanceolate; flowers reddish; Capsule depressed- globose and red in colour.

Flowering Season: Mid Monsoon

Uses:



***Anogeissus latifolia* (Roxb. ex DC.) Wall.**

C

Local Name: धावडा

Habit: Tree

Family: Sterculiaceae

Habitat: Along the hill slopes

Key Characters: Bark smooth, light coloured, Leaves alternate, elliptic, obtuse, glaucous green, midrib pink, Flowers sessile, in dense globose head, Fruit globular, beaked, winged

Flowering Season: Summer

Uses: Gum and tannin are extracted from the bark. This tree is most useful in every part of India like charcoal making, timber, furniture etc.



***Apluda mutica* L.**

C

Local Name: गोंडाळ

Habit: Herb

Family: Poaceae

Habitat: Along the road side and in open areas on hill

Key Characters: stem zigzag; Spikelets greenish red; Glumes boat shaped; reddish brown.

Flowering Season: Late Monsoon

Uses: It is good fodder species.



***Argemone mexicana* L.**

C

Local Name: पिवळा धोतरा **Habit:** Herb

Family: Papaveraceae **Habitat:** Near crop fields

Key Characters: Erect annual herb, weed of cultivations, Branches divaricate, leaves alternate, sessile, amplexicaul, variegated, deeply cut n spinous, Spines very sharp, Flowers terminal on branches, Capsules oblong, prickly.

Flowering Season: Throughout year

Uses: root, leaf and seed of the species is used against the ophthalmic disease.



***Argyreia nervosa* (Burm.f.) Bojer**

C

Local Name: समुद्र शोक **Habit:** Large Climber

Family: Convolvulaceae **Habitat:** Grows on trees or along the roadside slope

Key Characters: Stem stout, white & tomentose. Leaves alternate, ovate, acute, Glabrous above, white tomentose below, Cordate, Flower rosy purple inside & white pubescent outside.

Flowering Season: Late Monsoon

Uses: it is used as fodder species. Leaves are used in curing boils. Stem and leaves are used against rheumatic disease.



***Aristida adscensionis* L.**

C

Local Name: पांढरी कुसळ **Habit:** Herb

Family: Poaceae **Habitat:** Along the road side and in open areas on hill

Key Characters: Densely tufted Herb; leaves filiform; awns three, Inflorescence of linear panicles or fascicled spike.

Flowering Season: Late Monsoon

It is an indicator of degradation of forest.



***Aristolochia bracteolata* Retz.**

R

Local Name: सापसुंद

Habit: Large Climber

Family: Aristolochiaceae

Habitat: Commonly found on spiny bushes or on trees

Key Characters: Stem stout, grooved, Leaves alternate, ovate-oblong, base cordate with deep sinu, Flower in lax raceme, capsule oblong,

Flowering Season: Winter

Uses: this plant has insecticidal property.



***Asparagus racemosus* Willd.**

C

Local Name: शतावरी

Habit: Climber

Family: Liliaceae

Habitat: Spreads on small bushes or shrubs

Key Characters: Spiny shrub with linear leaves; flowers white; fruit berries, globose, 1-seeded, with wrinkled pericarp, red.

Flowering Season: Mid Monsoon

Uses: Roots has many medicinal properties and is main component of Shatavari-kalp. Roots also used in medicines of tuberculosis.

(Photo: Dr. Mandar Datar)



***Aspidopterys cordata* (Heyne ex Wall.) A. Juss.**

Oc

Local Name: बोकड वेल

Habit: Climber

Family: Malpighiaceae

Habitat: Grows on large trees

Key Characters: Branches tomentose, Leaves opposite, orbicular, abruptly acuminate, white tomentose below, Flower in lax tomentose terminal panicles, fruits three winged.

Flowering Season: Mid Monsoon



***Azadirachta indica* A. Juss.**

C

Local Name: कडूनिंब

Habit: Tree

Family: Meliaceae

Habitat:

Key Characters: Leaves alternate, pinnate, Leaflets falcately lanceolate, serrate, base unequal. Flowers in branched panicles, fragrant, Drupes oblong, yellow.

Flowering Season: Summer

Uses: Used to cure skin diseases. All plant parts show anti-inflammatory, antifungal, antibacterial properties.



***Bacopa monnieri* (L.) Penn.**

C

Local Name: नीर ब्राह्मी

Habit: Herb

Family: Scrophulariaceae

Habitat: In marshy and wet areas

Key Characters: Leaves sessile, decussate, oblong, fleshy, dotted with black dots, Flowers axillary, solitary, pedicels, capsules pointed

Flowering Season: Throughout year

Uses: Used as hair-tonic. Whole plant used to cure jaundice. Also used as brain-tonic.



***Barleria grandiflora* Dalz.**

R

Local Name:

Habit: Shrub

Family: Acanthaceae

Habitat: Mixed with tree species along the hill slope

Key Characters: Shrub with quadrangular stem; leaves variable in size, papery; margins finely spinous hairy; capsule oblong, shining, smooth; seed disc shaped.

Flowering Season: Mid Monsoon



***Bauhinia racemosa* Lamk.**

C

Local Name: आपटा

Habit: Tree

Family: Caesalpiniaceae

Habitat: Along the hill slopes and on plains

Key Characters: Stem crooked with dark bark. Branches drooping, Leaves broader than long, 2 lobed, glabrous above, tomentose below, base cordate, Flowers in terminal racemes, Pods oblong.

Flowering Season: Summer

Uses: Native tree having religious importance. Juice of leaves has medicinal properties.



***Boerhavia repens* L.**

C

Local Name: पुनर्नवा

Habit: Herb

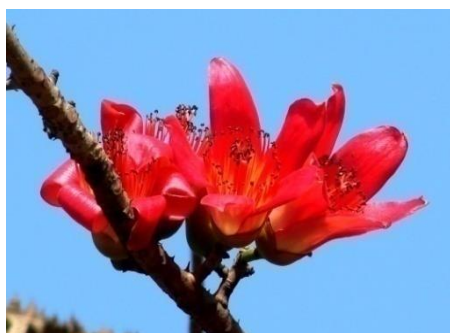
Family: Nyctaginaceae

Habitat: Mixed with medium size grasses

Key Characters: Stem prostrate, slender, purplish, swollen at node, Leaves opposite, in unequal broadly ovate, obtuse, base rounded, Flowers funnel shaped, dark pink, very small.

Flowering Season: winter

Uses: Plant has anti-inflammatory properties. It rejuvenates body and renews the tissues. Roots of plant are used as abortifacient. Whole plant used to cure jaundice, wounds and rheumatism.



***Bombax ceiba* L.**

C

Local Name: सावर

Habit: Tree

Family: Bombacaceae

Habitat: Along the hill slopes, on plains and near human settlements

Key Characters: Stem tall, with buttressed roots, Branches horizontal spreading, Leaves digitate, Flowers in solitary cymes at end of branches. Capsules ovoid, splitting in 5 segments, Seeds covered with cotton.

Flowering Season: Summer

Uses: Silk of fruit is used in making high quality cushions. It also has astringent, cooling, stimulant, diuretic properties and hence used as tonic. It is also used to cure asthma, dysentery etc. Seeds used as fodder.



***Boswellia serrata* Roxb. ex Colebr.**

C

Local Name: सालई

Habit: Tree

Family: Burseraceae

Habitat: Along the hill slopes

Key Characters: Stem crooked, Bark papery ash coloured, Pilling of in flakes, Leaves pinnate, Leaflets sessile, opposite, ovate, base rounded, Flowers creamy white in axillary racemes Droops^{m3} edged, yellow

Flowering Season: Summer

Uses: Resin used for joint pain especially in osteoarthritis, rheumeoarthritis. Bark used in asthma, dysentery, skin diseases and ulcers. Provides low quality timber. Leaves used as fodder



***Bougainvillea spectabilis* Willd.**

C

Local Name: बोगनवेल

Habit: Shrub

Family: Nyctaginaceae

Habitat: Planted along the road

Key Characters: Large scandent shrub; commonly cultivated in the garden as ornamental plant; calyx papery pink in colour, flower colour white.

Flowering Season: Throughout year

Uses: Planted for showy flowers along roadside and fencing.



***Bridelia retusa* (L.) Spreng.**

C

Local Name: असाणा

Habit: Tree

Family: Euphorbiaceae

Habitat: On hill slopes as well as in open areas

Key Characters: Bark grey, Leaves alternate, coracious, elliptic-oblong, rounded at apex, Flowers crowded in axillary clusters on terminal branches, Drupes globos, black.

Flowering Season: Monsoon

Uses: Plant pacifies vitiated vata, pitta, diarrhoea, dysentery, arthritis, diabetics, wounds and ulcers.



***Buchananiania lanzan* Spreng.**

C

Local Name: चारोळी

Habit: Tree

Family: Anacardiaceae

Habitat: Along the hill slopes

Key Characters: Trunk straight, Leaves alternate, thickly coriaceous, broadly oblong, obtuse, Flowers in terminal panicles, Drupes flattened, black, edible.

Flowering Season: Winter

Uses: It is nutritive and advised for patients of degenerative diseases. Fruits have laxative, binding, cooling properties. Seeds are used in brain and cardiac tonic



***Buchnera hispida* Buch.-Ham.**

C

Local Name: करंजी

Habit: Herb

Family: Scrophulariaceae

Habitat: In wet areas

Key Characters: Stem slender, hairy, Lower leaves opposite, upper alternate, toothed, narrowly linear, Flowers alternate in axil of floral bracts, purple.

Flowering Season: Late Monsoon

Uses: Used to cure joint pain.



***Butea monosperma* (Lamk.) Taub.**

C

Local Name: पळस

Habit: Tree

Family: Fabaceae

Habitat: Along the hill slopes and in plains, near crop fields

Key Characters: Stem crooked, rough, light grey, Leaves 3 foliolate, terminal leaflet bigger, glabrous above, silky below, Flowers in racemes, crimson orange coloured, Pods, flat, one seeded.

Flowering Season: Winter

Uses: Dye is extracted from flowers is used to colour clothes. Gum extracted from bark has medicinal. Used in blood disorder. Leaves used to prepare bowls.



***Calotropis gigantea* (L.) R. Br.**

C

Local Name: रुई

Habit: Shrub

Family: Asclepiadaceae

Habitat: Along road side, isolated

Key Characters: Whole plant contains milky juice. Leaves opposite, sessile, elliptic- oblong, thick, glaucous green, fine tomentum, Flowers umbellate cymes, Purplish white, follicles green.

Flowering Season: Late Monsoon

Uses: Latex is used to prepare kshar-sutra. Leaf oil is used to treat rheumatism.



***Carissa congesta* Vahl**

C

Local Name: करवंद

Habit: Shrub

Family: Apocynaceae

Habitat: Well distributed along hill slope as well as on plain areas

Key Characters: Stem short, branches many from base, Leaves opposite, elliptic, obtuse, bright green, whole plant have milky juice, Flowers in terminal corymbose cymes, Fruit, oblong, purplish black, edible.

Flowering Season: Monsoon

Uses: Fruits has many medicinal properties. Pickle prepared from fruits. Raw fruits edible.



***Cassia fistula* L.**

C

Local Name: बहावा

Habit: Tree

Family: Fabaceae

Habitat: : Along the hill slopes

Key Characters: Stem straight, pale grey, Leaves pinnate, Leaflets ovate, bright green, glabrous, Flowers in pendulous racemes, Pods cylindrical, smooth, brown, seeds light brown.

Flowering Season: Summer

Uses: Native tree planted along roadside and in campus. Fruit pulp is purgative. Bark, leaves, flowers and fruits have medicinal properties.



***Cassia tora* L.**

W

Local Name: टाकळा

Habit: Herb

Family: Caesalpinaceae

Habitat: Mixed with medium sized grasses and herbs

Key Characters: Stem erect, Leaves pinnate, Leaflets ovate-oblong, glaucous, base obliquely rounded, Flowers sessile, axillary in pairs, Pods angled, curved

Flowering Season: Mid Monsoon

Uses: Young leaves used as vegetable.

(Photo: Dr. Mandar Datar)



***Cassine glauca* (Rottb.) O. Ktze.**

Oc

Local Name: भुल्या पळस

Habit: Tree

Family: Celastraceae

Habitat: Along the hill slopes

Key Characters: Leaves opposite & alternate, elliptic, acuminate, twisted at apex, Flowers in axillary branched cymes, Drupes obovoid, apiculate.

Flowering Season: Summer

Uses: Plant has anti-inflammatory properties. Used to treat headache. Candidate species for plantation in forestry and landscape.



***Celastrus paniculatus* Willd.**

Oc

Local Name: माल कांगुनी

Habit: Climber

Family: Celastraceae

Habitat: Grows on large trees

Key Characters: Leaves alternate, broadly ovate, serrate near apex, Flowers in terminal pyramidal panicles, Capsules globose, yellow, wrinkled.

Flowering Season: Monsoon

Uses: Leaves used in brain tonic.



Celosia argentic L.f.

C

Local Name: कुई

Habit: Herb

Family: Amaranthaceae

Habitat: Widely distributed on hills and in grasses

Key Characters: Stem erect, pink tinged, Leaves alternate, lanceolate, base tapering in to short petiole, pale green, Flowers crowded in terminal spikes, bright pink turning to shining white, dry paper like. Capsules small

Flowering Season: Mid Monsoon

Uses: Leaves used as vegetable.



Chionanthus mala-elengi (Dennst.) P. S. Green.

R

Local Name: हेद्दी

Habit: Tree/Evergreen

Family: Oleaceae

Habitat: On slopes mixed among shrubs

Key Characters: Leaves opposite, coriaceous, elliptic, acuminate, Flowers on axillary peduncles, fragrant, Drupes ellipsoid, fleshy.

Flowering Season: Winter

Uses:



Chloris virgata Swartz

C

Local Name: गोंडवेल

Habit: Herb

Family: Poaceae

Habitat: Along the road side and in open areas on hill

Key Characters: A small tuft herb with creeping base; spikes arranged in a row, unilateral; grains subtrigonal.

Flowering Season: Late Monsoon

Uses: Plant used as fodder.

Cissampelos pareira L.

R



Local Name: पहाडवेल

Habit: Climber

Family: Menispermaceae

Habitat Woody climber spreads over canopy of large trees

Key Characters: Stem erect, pink tinged, Leaves alternate, lanceolate, base tapering in to short petiole, pale green, Flowers crowded in terminal spikes, bright pink turning to shining white, dry paper like. Capsules small

Flowering Season: Mid Monsoon

Uses:



***Clematis gouriana* Roxb. ex DC.**

C

Local Name: रान जाई

Habit: Climber

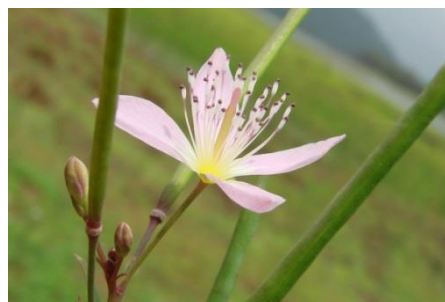
Family: Ranunculaceae

Habitat Grows on medium and large trees

Key Characters: Stem grooved brown, Leaves opposite, pinnate, Leaflets oblong, lanceolate, toothed, shining above, flowers greenish white, fragrant,

Flowering Season: Late Monsoon

Uses: Native medicine against skin diseases.



***Cleome simplicifolia* Hook.f. & Thoms.**

C

Local Name: गवती तिळवन

Habit: Herb

Family Capparaceae

Habitat: Mixed with medium sized grasses and herbs

Key Characters: Stem grooved brown, Leaves opposite, pinnate, Leaflets oblong, lanceolate, toothed, shining above, flowers greenish white, fragrant,

Flowering Season: Summer

Uses:



***Clerodendron serratum* Spreng.**

C

Local Name: भारंगी

Habit: Shrub

Family: Verbenaceae

Habitat : Along the edges and open areas of hill slopes

Key Characters: Stem branched, quadrangular, Leaves opposite, elliptic, acute, Sharply serrate, flowers in terminal pyramidal erect panicles.

Flowering Season: Mid Monsoon

Uses: Tender leaves cooked as vegetable.



Clitoria ternatea L.

C

Local Name: गोकर्ण

Habit: Climber

Family: Fabaceae

Habitat : Grows on small sized bushes or shrubs

Key Characters: Stem terete, pubescent, Leaves imparipinnate, coracious, hairy, Flowers isolitary on axillary pedicles, often white, Pods beaked.

Flowering Season: Summer

Uses: Roots are purgative. Root juice is used in nasal administration and migraine. Cold infusion of leaves in useful in skin diseases. Ornamental climber.



Cocculus hirsutus (L.) Diels

C

Local Name: जल जामणी

Habit: Climber

Family: Menispermaceae

Habitat : Grows on bushes or shrubs

Key Characters: Leaves cordate, very pubescent from both sides; male flowers and female flowers are separate on same plant.

Flowering Season: Winter

Uses: Root of this climber is useful in joint pains, swelling and has diuretic properties. Also used in diabetes.



Cochlospermum religiosum (L.) Alst.

R

Local Name: गणेर

Habit: Tree

Family : Cochlospermaceae

Habitat : Along the hill slopes

Key Characters: Bark smooth brown, Leaves crowded at end of branches, glabrous above, tomentose below, Flowers in terminal panicles, Bright golden yellow, Capsules deep brown, splitting in 5 segments.

Flowering Season: Summer

Uses: Bark used in making ropes. Cotton used for making pillow. Gum edible.



Cocos nucifera L.

C

Local Name: नारळ

Habit: Tree

Family : Araceae

Habitat : Along the hill slopes

Key Characters: unbranched tree, thickened at base; leaves compound, linear; spadix long, stout, panicle; female flowers towards the base and male flowers above; Fruit green or yellowish.

Flowering Season: Throughout year

Uses: Tree having religious importance and used in many ways.



Commelina benghalensis L.

C

Local Name: केना

Habit: Herb

Family : Commelianaceae

Habitat : Near wet areas, among the medium size grasses

Key Characters: Stem branching from base, Leaves sessile, ovate, hairy on both side, Flowers in cymes.

Flowering Season: Summer

Uses: Leaves edible and used to prepare ' pakodas'



Commelina forsskalaei Vahl.

C

Local Name: केनपट

Habit: Herb

Family : Commelianaceae

Habitat : Near wet areas, among the medium size grasses

Key Characters: Stem branched, slender, Leaves narrowly

lanceolate, cordate at base, Flowers in axillary branched cymes, blue.

Flowering Season: Mid Monsoon



***Corchorus aestuans* L.**

C

Local Name: मिशीवले झाड़

Habit: Herb

Family : Tiliaceae

Habitat : Mixed with medium sized grasses and herbs

Key Characters: Stem branched, slender, Leaves narrowly lanceolate, cordate at base, Flowers in axillary branched cymes, blue.

Flowering Season: Late Monsoon

Uses: Used in making fibres. Leaves has diuretic activities and used as anti-inflammatory.



***Cordia dichotoma* Forst.**

C

Local Name: भोकर

Habit: Tree

Family : Boraginaceae

Habitat : On hill slope as well as on plain near human settlements

Key Characters: Leaves alternate, broadly ovate, Flowers in large terminal & axillary panicles, creamy white, Drupes shining pink.

Flowering Season: Summer

Uses: Raw fruits edible. Used to make pickle.



***Crotalaria filipes* Benth.**

C

Local Name: फटफटी

Habit: Herb

Family : Fabaceae

Habitat : Mixed in grasses of small size, in open areas

Key Characters: small prostrate; Leaves ovate, mucronate, sessile, hairy, Flowers in axillary racemes, yellow.

Flowering Season: Mid Monsoon

Uses: Leguminous plants used for soil improvement.



***Crotalaria hebecarpa* (DC.) Rudd.**

C

Local Name: गोधडी

Habit: Herb

Family : Fabaceae

Habitat : Mixed in grasses of small size, in open areas

Key Characters: Stem branched, slender, Leaves narrowly lanceolate, cordate at base, Flowers in axillary branched cymes, blue.

Flowering Season: Summer

Uses: Leguminous plants used for soil improvement.



***Crotalaria linifolia* L.**

C

Local Name: छोटा खुलखुल्ला

Habit: Herb

Family : Fabaceae

Habitat : Mixed in grasses of small size, in open areas

Key Characters: Stem branched, slender, Leaves narrowly lanceolate, cordate at base, Flowers in axillary branched cymes, blue.

Flowering Season: Late Monsoon

Uses: Leguminous plants used for soil improvement.



***Crotalaria medicaginea* Lamk.**

C

Local Name: रंगस

Habit: Herb

Family : Fabaceae

Habitat : Mixed with medium sized grasses and herbs

Key Characters: Leaves alternate, foliolate petioles. Flowers in terminal racemes, yellow, pods globose, beaked.

Flowering Season: Late Monsoon

Uses: Leguminous plants used for soil improvement.



***Crotalaria mysorensis* Roth.**

C

Local Name: रंगस

Habit: Herb

Family : Fabaceae

Habitat : Mixed with medium sized grasses and herbs

Key Characters: Branches with many long hairs, Leaves simple, alternate, sessile, silky hairy, Flowers in lax terminal racemes, hairy, light yellow.

Flowering Season: Late Monsoon

Uses: Leguminous plants used for soil improvement.



***Crotalaria retusa* L.**

C

Local Name: खुळखुळा

Habit: Herb

Family : Fabaceae

Habitat : Mixed with medium sized grasses and herbs

Key Characters: Leaves alternate, oblong, Flowers in terminal racemes, bracts pointed, yellow, Pods linear-oblong.

Flowering Season: Summer

Uses: Leguminous plants used for soil improvement.



***Cryptolepis buchanani* Roem. & Schult.**

C

Local Name: कावळी

Habit: Climber

Family : Asclepiadaceae

Habitat : On hill slope near bushes or trees

Key Characters: Stem woody, short, Leaves opposite, elliptic, green above, White below, Plant contains watery juice, Flowers in axillary terminal panicles.

Flowering Season: Throughout year

Uses: Plant is used to treat jaundice.



***Cullen corylifolia* (L.) Medik**

C

Local Name: बावची

Habit: Herb

Family : Fabaceae

Habitat : Mixed with medium sized grasses and herbs

Key Characters: Stem & branched grooved & covered with white hairs, Leaves alternate, broadly elliptical, dentate, Flowers in axillary & solitary racemes..

Flowering Season: Mid Monsoon

Uses:



***Curcuma pseudomontana* Grah.**

C

Local Name: रान हळद

Habit: Herb

Family : Zingiberaceae

Habitat Near wet areas, among the medium size grasses and herbs

Key Characters: Rhizome small; root fibrous; leaves oblanceolate; spike lateral and central; flowers has bright yellow staminodes; capsules subglobose; seeds many.

Flowering Season: Mid Monsoon

Uses: Flowers used during religious ceremonies.



***Cyanotis tuberosa* Schult.**

C

Local Name: कावळी

Habit: Herb

Family : Commelianaceae

Habitat Near wet areas, among the medium size grasses

Key Characters: Stem suberect, swollen & very hairy at base, Leaves sessile, sheathed, radical. Flowers in terminal cymes, Bluish purple, Anthers yellow.

Flowering Season: Mid Monsoon

Uses: Juice to succulent leaves is used to treat fungal diseases and mouth sores.



***Cynadon dactylon* Pers.**

C

Local Name: हरळ

Habit: Herb

Family : Poaceae

Habitat Near wet areas, among the medium size grasses

Key Characters: Stem suberect, swollen & very hairy at base, Leaves sessile, sheathed, radical ,Flowers in terminal cymes, Bluish purple, Anthers yellow.

Flowering Season: Throughout year

Uses: Used as fodder. Plant has religious importance.



***Cynarospermum asperrimum* (Nees) Vollesen**

C

Local Name: देखणा

Habit: Herb

Family : Acanthaceae

Habitat :Mixed with small size grasses in open or shady areas

Key Characters: Leaves opposite, ovate,lanceolate, Spinous dentate, Flowers solitary, sessile, Purple with dark or white veins

Flowering Season: Late Monsoon



***Cyperus digitatus* Roxb.**

C

Local Name: लव्हाळे

Habit: Herb

Family Cyperaceae

Habitat : Near wet areas, among the medium size grasses

Key Characters: Stem suberect, swollen & very hairy at base, Leaves sessile, sheathed, radical, Flowers in terminal cymes, Bluish purple, Anthers yellow.

Flowering Season: Late Monsoon

Uses:



***Dalbergia horrida* (Densst.) Mabb.**

Oc

Local Name: पेंडगूळ

Habit: Climber

Family : Fabaceae

Habitat : Woody climber spreads over canopy of large trees

Key Characters: Stem suberect, swollen & very hairy at base, Leaves sessile, sheathed, radical, Flowers in terminal cymes, Bluish purple, Anthers yellow.

Flowering Season: Winter

Uses:



***Dalbergia lanceolaria* L. f.**

C

Local Name: दंडूस

Habit: Tree

Family : Fabaceae

Habitat : Along the hill slopes

Key Characters: Bark greenish white, Leaves alternate, pinnate, Flowers in terminal panicles, redish brown, pubescent. Pods narrowed at both ends.

Flowering Season: Summer

Uses: Wood is good. Used for construction purpose.



***Dalbergia melanoxylon* Guill. & Perr.**

Cul

Local Name: पतंगी

Habit: Tree

Family : Fabaceae

Habitat : Along the hill slopes

Key Characters: Stem suberect, swollen & very hairy at base, Leaves sessile, sheathed, radical, Flowers in terminal cymes, Bluish purple, Anthers yellow.

Flowering Season: Summer

Uses: Wood yields good quality timber.



***Dalbergia sissoo* Roxb.**

C

Local Name: शिसव

Habit: Tree

Family : Fabaceae

Habitat : Along the hill slopes

Key Characters: Leaves alternate, imparipinnate, Leaflet orbicular, Flowers sessile, in branches of axillary penicles, Pods strap shaped.

Flowering Season: Summer

Uses: Very widely used hard wood timber tree. Used for making furniture, in construction to make doors and door frames.



***Datura metel* L.**

C

Local Name: थोतरा

Habit: Shrub

Family : Solanaceae

Habitat : In open areas near crop fields

Key Characters: Stem suberect, swollen & very hairy at base, Leaves sessile, sheathed, radical; Flowers in terminal cymes, Bluish purple, Anthers yellow.

Flowering Season: Late Monsoon

Uses: All plant parts contain high concentration of alkaloids which are used in traditional Chinese medicines.



***Delonix regia* (Boj ex Hook.) Raf.**

Cul

Local Name: गुलमोहोर

Habit: Tree

Family : Caesalpinaceae

Habitat : Planted along the road

Key Characters: Leaves imparipinnate, coracious, Flowers in terminal & axillary recemes, red, Pods flat, glossy.

Flowering Season: Summer

Uses: Ornamental tree planted along roadside.



***Desmodium gangeticum* (L.) DC.**

R

Local Name: सालपर्णी

Habit:

Family : Fabaceae

Habitat : On hill slope mixed with shrubs

Key Characters: Leaves alternate, ovate, hairy below, Flowers in terminal recemes, campanulate, hairy, pink, Pods curved hairy.

Flowering Season: Summer

Uses: It shows cooling, strengthening and anti-inflammatory effects. Traditionally used for asthma.



***Dicanthium huegelii* Jain & Deshpande**

C

Local Name: मारवेल

Habit: Tree

Family : Poaceae

Habitat : Along the road side and in open areas on hill

Key Characters: Leaves alternate, ovate, hairy below, Flowers in terminal recemes, campanulate, hairy, pink, Pods curved hairy.

Flowering Season: Late Monsoon

Uses: Commonly growing weed along roadsides and grasslands.



***Dinebra retroflexa* (Vahl) Panz.**

C

Local Name: पिरामिड गवत **Habit:** Herb

Family : Poaceae **Habitat :** Along the road side and in open areas on hill

Key Characters: tuft herb; culms erect; leaves linear, acuminate; inflorescence pyramidal, racemes stiff; spikelets long.

Flowering Season: Late Monsoon

Uses:



***Dioscorea pentaphylla* L.**

C

Local Name: डुक्करकंद **Habit:** Climber

Family : Dioscoriaceae **Habitat :** Grows on medium and large trees

Key Characters: Tubers usually simple; leaves alternate; flowers white or greenish white, flowers monosexual; capsule retuse at both the ends; seed winged only towards base.

Flowering Season: Mid Monsoon

Uses: Inflorescence edible.



***Dipteracanthus patulus* (Jacq.) Nees.**

C

Local Name: काटमारा **Habit:** Herb

Family : Acanthaceae **Habitat :** In shrub dominated areas

Key Characters: Branches many, pubescent, Leaves opposite, pubescent on both sides, Flowers axillary, solitary, sessile, purplish blue

Flowering Season: Winter

Uses: It is used as cardi tonic, antiulcer, antioxidant, insect bite, rheumatic pains. Decoction of stem is used to heal fractured bones.



***Dolichandrone falacata* (Wall ex DC.) Seem**

C

Local Name: मेडशिंगी

Habit: Tree

Family : Bignoniaceae

Habitat : On hill slopes

Key Characters: Leaves opposite, pinnate, Leaflets opposite, Flowers white in terminal racemes. Strongly fragrant, Capsules curved & twisted.

Flowering Season: Summer

Uses: Antidiabetic, anxiolytic. Juice of leaves is effective in treatment of piles.



***Dolichos trilobus* L.**

C

Local Name:

Habit: Climber

Family : Fabaceae

Habitat : Grows on small sized bushes or shrubs

Key Characters: Leaves opposite, pinnate, Leaflets opposite, Flowers white in terminal racemes. Strongly fragrant, Capsules curved & twisted.

Flowering Season: Late Monsoon

Uses:



***Dopatrium nudicaule* (Willd.) Benth.**

C

Local Name: दोपात्री

Habit: Herb

Family : Scrophulariaceae

Habitat : In wet areas, mixed with small size grasses

Key Characters: Leaves opposite, pinnate, Leaflets opposite, Flowers white in terminal racemes. Strongly fragrant, Capsules curved & twisted.

Flowering Season: Late Monsoon



***Emblica officinalis* Gaertn.**

C

Local Name: आवळा

Habit: Tree

Family : Euphorbiaceae

Habitat : On Hill slopes, near human settlements

Key Characters: Bark grey, pilling off, Leaves alternate, linear, Flowers in axillary clusters on branches, Fruit globos, 6 lobed, edible.

Flowering Season: Summer

Uses: Dried and fresh fruits of the plant are used in traditional Indian medicine. Fruit, seed, leaves, root, bark and flowers of the plant are used in various Ayurvedic and Unani systems of medicine.

The fruit is [pickled](#) and also eaten raw or cooked.



***Emilia sonchifolia* DC.**

C

Local Name: म्हातारा

Habit: Herb

Family : Asteraceae

Habitat : Mixed with small size grasses in open or shady areas

Key Characters: Leaves obovate, toothed, Flowers in heads on long peduncles, purple.

Flowering Season: Late Monsoon

Uses: It is used to cure various ailments such as sore-throat, tonsillitis, styptic, wounds healing and stomach ache.



***Eranthemum roseum* (Vahl) R. Br.**

C

Local Name: रान अबोली

Habit: Herb

Family : Acanthaceae

Habitat : Mixed among the shrubs, under canopy

Key Characters: Leaves opposite; flowers in terminal spikes, at base of flowers bracts and bracteoles present, corolla tube spreads above, petals blue turns pinkish red on drying

Flowering Season: Late Monsoon

Uses: One of the major constituent in Dashmuli. The plant shows anti-inflammatory and antioxidant properties.



***Erythrina stricta* Roxb.**

RC

Local Name: पांगारा

Habit: Tree

Family : Euphorbiaceae

Habitat : Along the hill slopes and plains

Key Characters: Tree, stem and branches prickly, leaves trifoliate; flowers scarlet in colour, born in clusters at the end of branches; pods brown, narrow at both tips.

Flowering Season: Winter

Uses: Wood is used for making match-sticks, toys, art crafts. Flowers provide rich nectar to many birds. Planted along roadsides and in gardens for showy flowers



***Eucalyptus globulus* Labill.**

Cul

Local Name: नीलगिरी

Habit: Tree

Family : Myrtaceae

Habitat : along the hill slopes

Key Characters: Large tree, bark papery white, peeling off; leaves linear, having strong smell, dark green; flowers white, stamens many

Flowering Season: Late Monsoon

Uses: Eucalyptus oil is obtained from dried leaves. The oil is used in treatment of asthma and bronchitis and also in perfumery



***Eupatorium adenophorum* Spr.**

W

Local Name: रान मारी

Habit: Shrub

Family : Asteraceae

Habitat : Very common along hill slope as well as on plain areas

Key Characters: Widespread weed, native of Mexico. Stems with stalked glands; leaves triangular in shape, margins serrate; flowers in heads, pinkish white in colour

Flowering Season: Summer

Common weed along roadside and wastelands



***Euphorbia hirta* L.**

C

Local Name: धुधानी

Habit: Herb

Family : Euphorbiaceae

Habitat : Distributed in small sized grasses

Key Characters: small prostrate herb; branches densely clothed with spreading hairs; leaves elliptic or oblong; capsule hairy; seed reddish brown.

Flowering Season: Mid Monsoon

Uses: Plant is used to improve lactation. Also used as remedy against various respiratory diseases such as cough, bronchitis and asthma.



***Euphorbia ligularia* Roxb.**

C

Local Name: साबर

Habit: shrub

Family : Euphorbiaceae

Habitat : Along the boundaries and edges of vegetation patches

Key Characters: Succulent, much branched shrubs with milky sap; stem covered with spines; flowers red in colour

Flowering Season: Summer

Uses: Plant is used as remedy against skin diseases, constipation, ulcers, arthritis and asthma.



***Euphorbia notoptera* Boiss**

C

Local Name:

Habit: shrub

Family : Euphorbiaceae

Habitat : Grows among grasses

Key Characters: Stem with milky juice, Leaves distant opposite, linear, Flowers in involucre, 2-3 together, terminal, Capsules globose.

Flowering Season: Summer

Uses:



***Euphorbia tirucalli* L.**

C

Local Name: शेर

Habit: shrub

Family : Euphorbiaceae

Habitat : In open areas, mixed with grasses

Key Characters: Stems green, succulent; leaves present only at the end of branches, deciduous, contains milky latex

Flowering Season: Mid Monsoon

Uses: It is used as remedy for [asthma](#), cough, earache, [rheumatism](#), toothache. The milky [latex](#) is toxic and extremely irritating to the skin. Contact with skin causes severe irritation, contact with the eyes may cause severe pain, and in some cases temporary blindness for several days.



***Evolvulus alsinoides* L.**

C

Local Name: विषक्रांत

Habit: shrub

Family : Convolvulaceae

Habitat : In grasslands and open areas

Key Characters: Common spreading herb; leaves elliptic in shape, covered with white woolly hairs; flowers born single or in group in leaf axils, flowers small 3-7 mm, violet in colour

Flowering Season: Mid Monsoon

Uses: This plant is used as brain-tonic in traditional systems of medicine. Roots are effective in constipation and abdominal diseases.



***Ficus amplissima* J.E. Sm.**

C

Local Name: पायर

Habit: Tree

Family : Moraceae

Habitat : On plain areas , near human settlements

Key Characters: Large tree, bark greyish white; leaves thick, glossy with acuminate apex. Milky latex present

Flowering Season: Summer

Uses: Fruits edible, provide food to many species of birds and mammals.



***Ficus benghalensis* L.**

C

Local Name: बड़

Habit: Tree

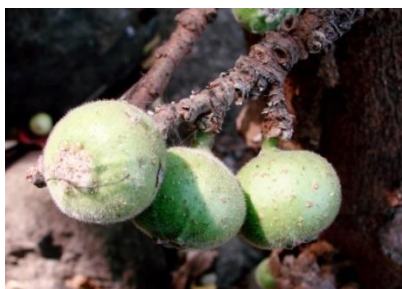
Family : Moraceae

Habitat : On plain areas , near human settlements

Key Characters: Large tree producing aerial roots; leaves thick, dark green, oval in shape, contains milky latex; figs red in colour

Flowering Season: Summer

Uses: Fruits is source of food for birds and animals.Used in paper industry. Sacred plant.Planted as avenue tree along roadsides.



***Ficus hispida* L.**

C

Local Name: काळा - उंबर

Habit: shrub

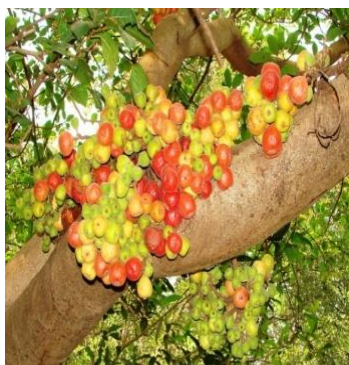
Family : Moraceae

Habitat : Near water sources

Key Characters: Small tree with greyish bark. Leaves opposite, milky latex present.

Flowering Season: Mid Monsoon

Uses: Fibre yeildling plants. Fruits edible.



***Ficus racemosa* L.**

C

Local Name: उंबर

Habit: Tree

Family : Moraceae

Habitat : Near water sources

Key Characters: Large tree; bark whitish; leaves thick, glossy, often covered by galls; fruits born on stem

Flowering Season: Summer

Uses: It is a sacred tree. Used in paper industry. Bark used to cure leprosy. Birds and animals feeds on ripe fruits.



***Ficus religiosa* L.**

C

Local Name: पिंपळ

Habit: Tree

Family : Moraceae

Habitat : Near water sources

Key Characters: Large tree; bark whitish; leaves thick, glossy, often covered by galls; fruits born on stem

Flowering Season: Summer

Uses: It is a sacred tree. Used in paper industry. Bark used to cure leprosy. Birds and animals feeds on ripe fruits.



***Flacourtia indica* (Burm.f.) Merr.**

C

Local Name: अन्धम

Habit: Shrub

Family : Flacourtiaceae

Habitat : On hill slope mixed with shrubs and trees

Key Characters: Large tree; bark whitish; leaves thick, glossy, often covered by galls; fruits born on stem

Flowering Season: Winter

Uses: Used as fodder plant



***Flemingia strobilifera* (L.) Ait. & Ait.f.**

C

Local Name: कानफुटी

Habit: Shrub

Family : Fabaceae

Habitat : Mixed with medium sized grasses and herbs

Key Characters: Small shrub; Leaves oblong, silky beneath, with acute apex; Flowers white; Pods oblong and densely pubescent; seed-12, dark brown in colour.

Flowering Season: Mid Monsoon

Uses: Used as fodder plant



***Garuga pinnata* Roxb.**

Oc

Local Name: काकड

Habit: Tree

Family : Burseraceae

Habitat : Along the hill slopes, on plains and near human settlements

Key Characters: Large tree with compound leaves; flowers yellow in branched clusters

Flowering Season: Summer

Uses: Plants used as fodder. Stem used to cure stomachache



***Gmelina arborea* Roxb.**

C

Local Name: शिवण

Habit: Tree

Family : Verbenaceae

Habitat : Along the hill slopes

Key Characters: Tree, smooth whitish bark; leaves and branches hairy; leaves heart shaped; flowers yellowish brown

Flowering Season: Summer

Uses: Plant is good source of timber wood. It is used in making variety of products . Wood is suitable for making match sticks, paper making.



***Gomphrena serrata* L.**

C

Local Name: सुपारफुली

Habit: Herb

Family : Amaranthaceae

Habitat : Along the road side in small size grasses, near water

Key Characters: Herb growing along ground. Leaves shiny on upper surface and densely hairy below; flowers white.

Flowering Season: Monsoon

Uses: Leaf juice is prescribed for kidney-stone.



Grangea maderaspatana (L.) Poir.

C

Local Name: माशी पत्री

Habit: Herb

Family : Asteraceae

Habitat : In wet areas

Key Characters: Herbs growing along ground; leaves hairy, dissected; flowers in yellow heads

Flowering Season: Winter

Uses: Leaves having valuable stomachic properties. Also used in antiseptic and anodyne preparations.



Grewia tiliifolia Vahl.

C

Local Name: धाम्प

Habit: Tree

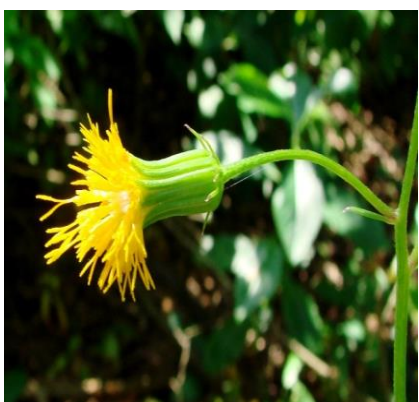
Family : Tiliaceae

Habitat : Along the hill slopes

Key Characters: Small trees; leaves cordate, margins dentate; flowers yellow with many stamens

Flowering Season: Summer

Uses: A good timber yielding plant. Wood is durable, soft and easy to carve and polish. Used for making carts, agricultural implements, furniture etc.



Gynura bicolor (Roxb. ex Willd.) DC.

C

Local Name: कुसुंबी

Habit: Herb

Family : Asteraceae

Habitat : Mixed with medium sized grasses

Key Characters: Small shrubs, leaves toothed; flowers yellow to orange

Flowering Season: Mid Monsoon

Uses: Plant is rich source of iron and potassium, calcium, vitamin A, etc.



***Gynura nitida* DC.**

C

Local Name: कुसुंबी

Habit: Herb

Family : Asteraceae

Habitat : Mixed with medium sized grasses

Key Characters: Herbs; stem angular, slightly hairy; leaves irregular; flowers in orange-red heads

Flowering Season: Winter

Uses:



***Haplanthodes tentaculata* (L.) R.B. Mujumdar**

C

Local Name: जाकरा

Habit: Herb

Family : Asteraceae

Habitat : In wet or waterlogged areas

Key Characters: Herb growing near water bodies. Stem angular, leaves small heart shaped; flowers bluish-white

Flowering Season: Winter

Uses: Root powder is used to enhance the healing of wounds.



***Hedyotis aspera* Heyne ex Roth.**

C

Local Name:

Habit: Herb

Family : Rubiaceae

Habitat : Mixed with grasses

Key Characters: Small herbs, stem angled, leaves in clusters; flowers white with blue throat

Flowering Season: Mid Monsoon



***Hedyotis corymbosa* (L.) Lam**

C

Local Name: पित्तपापडा

Habit: Herb

Family : Rubiaceae

Habitat : Mixed with grasses

Key Characters: Small herbs, spreading on ground; leaves in clusters, narrow; flowers pink

Flowering Season: Summer

Uses: The plant is useful in depression, fever, jaundice, constipation, cough, bronchitis, leprosy and skin diseases.



Hemidesmus indicus (L.) Schult.

C

Local Name: अनंतमूल

Habit: climber

Family : Periplocaceae

Habitat : Grows on trees or shrubs species

Key Characters: Climbing herb, stem brown; milky latex present; flowers yellowish brown, star shaped.

Flowering Season: Mid Monsoon

Uses: Medicinal herb used to treat variety of diseases. Roots are used to cure fever, snakebites.



Hemigraphis latebrosa (Heyne ex Roth) Nees

C

Local Name: मोरपंखी

Habit: Herb

Family : Acanthaceae

Habitat : In wet or waterlogged areas

Key Characters: Along roadside widely distributed in herbaceous species. Small herbs, stem angular, leaves opposite, hairy. Flowers born in leaf axils surrounded by bracts and bracteoles, blue in colour.

Flowering Season: Winter



Heterophragma quadriloculare (Roxb.) K. Schum.

C

Local Name: वारस

Habit: Tree

Family : Bignoniaceae

Habitat : On hill slope

Key Characters: small tree with compound leaves, base oblique; Inflorescence densely fulvous tomentose; flowers white, fragrant; capsule linear pointed.

Flowering Season: Winter

Uses: Various plant parts are traditionally used for different purpose like anti-diabetic, food, antimicrobial and antifungal activity.



Heteropogon contortus (L.) P.Beauv.

C

Local Name: काळी कुसळ

Habit: Herb

Family : Poaceae

Habitat Along the road side and in open areas on hill

Key Characters: Perennial Herb; Leaves linear, acuminate; Spikelets sessile, dark brown in colour.

Flowering Season: Late Monsoon

Weed indicating degradation of vegetation. Tender plants are used as fodder.



Hibiscus hirtus L.

C

Local Name: दुपारी

Habit: Shrub

Family : Malvaceae

Habitat : On hill slope mixed with shrubs

Key Characters: Small shrub with hairs on stem; leaves irregularly toothed; Flowers solitary, white or pink, Capsule has 5 valved, globose, Seed black in colour.

Flowering Season: Winter



Holarrhena pubescens (Buch. Ham.) Wall. ex G. Don

C

Local Name: पांढरा कुडा

Habit: Tree

Family : Asclepiadaceae

Habitat : On hill slope

Key Characters: Small Tree; Leaves ovate; Flowers white, bracteate. Follicle cylindric, with white spot. Seeds hairy.

Flowering Season: Summer

Uses: Stem used in making walking sticks. Flowers and seeds are eaten as famine food. Plant is important in reclothing of barren hill slopes. Bark and seeds are used as antidysentrics.



Holoptelea integrifolia (Roxb.) Planch.

C

Local Name: वावळ

Habit: Tree

Family : Ulmaceae

Habitat : Near water sources, along hill slope

Key Characters: Large tree commonly growing on hill slopes; stem whitish brown; leaves alternate, oval-elliptic; flowers small

Flowering Season: Winter

Uses: Seeds are edible.



Hymenodictyon orixense (Roxb.) Mabb.

C

Local Name: काळा कदू

Habit: Tree

Family : Rubiaceae

Habitat : Along the hill slopes

Key Characters: Tree with smooth bark; leaves crowded at tips of branches, elliptic in shape; flowers greenish, fragrant

Flowering Season: Summer

Uses: This species is used for good quality wood for furniture and small items, and its bark is a source of dye.



Impatiens balsamina L.

C

Local Name: तेरडा

Habit: Herb

Family : Balsaminaceae

Habitat : Mixed with medium sized grasses and herbs

Key Characters: Annual herbs, stem and branches reddish; leaves longer than broad with serrate margin; flowers pink; fruits small about 2-3 cm, covered with hairs

Flowering Season: Mid Monsoon

Uses: Flowers are offered in religious activities. Used to treat skin infections, rheumatism and bone fractures. Leaf juice used to cure warts and snake bite.



Ipomoea carnea Jacq.

C

Local Name: बेशरम

Habit: Shrub

Family : Convolvulaceae

Habitat : In water logged areas on plain

Key Characters: Shrubs, branches hairy; leaves heart shaped; flowers pink with dark centre

Flowering Season: Throughout year

Uses: Leaves shows anti-microbial activity.



Ipomoea nil L.

C

Local Name: गारवेल

Habit: Climber

Family : Convolvulaceae

Habitat : Grows on trees or bushes

Key Characters: Commonly growing climber; leaves heart shaped; flowers funnel shaped, blue coloured

Flowering Season: Mid Monsoon

Uses: Seeds are used as purgative



Jatropha curcas L.

C

Local Name: मोगली एरंड

Habit: Shrub

Family : Balsaminaceae

Habitat : Lower part of the hills

Key Characters: Shrubs, growing along hill slopes; leaves heart shaped at base; flowers greenish, yellow.

Flowering Season: Summer

Uses: Used in soap industry. It is planted mainly to prevent water erosion. It is recommended to grow as shelter beds and used as green manure. Seeds used as purgative and in treatment of toothache.



Kigelia africana (Lam.) Bth.

C

Local Name: ब्रह्मदंड

Habit: Tree

Family : Bignoniaceae

Habitat: Planted along the road

Key Characters: Large trees; leaves compound; flowers dark reddish purple; fruits sausage shaped.

Flowering Season: Summer

Uses: Tree is native of Tropical Africa, planted as avenue tree along roadsides



Kydia calycina(L.) Roxb.

C

Local Name: वारंग

Habit: Tree

Family : Malvaceae

Habitat : Along the hill slopes

Key Characters: Small tree; branches covered with smooth, dense hairs; flowers white having small stamina tube

Flowering Season: Late Monsoon

Uses: Plants used as fodder. Stems used for making plywood. Used in making variety of articles as soft timber.



Lagerstroemia microcarpa Wight

C

Local Name: नाणा

Habit: Tree

Family : Lythraceae

Habitat : Along the hill slopes

Key Characters: Large tree with smooth bark; leaves dark green above, silvery white beneath; tertiary nerves almost parallel; flowers white; capsules black, dehiscent in five parts

Flowering Season: Winter

Uses: A good timber yielding tree, used for construction purposes and for making plywood.



Lagera alata (D. Don) Sch..Bip. ex Oliver

C

Local Name:

Habit: Herb

Family : Asteraceae

Habitat : In open areas, mixed with grasses

Key Characters: Annual herbs about 100 cm high; flowers pink in colour

Flowering Season: Winter

Uses: Plant is used in the treatment of some ailments associated with hepatitis. It shows inhibitory effects of acute and chronic inflammation.



Lantana camara L.

C

Local Name: घाण्णरी

Habit: Shrub

Family : Verbenaceae

Habitat : Invasive on open areas

Key Characters: Common shrubs found in waste places and along hills. Stem parts and leaves covered with rough hairs. Flowers born in clusters; pink to yellow in colour; slightly fragrant.

Flowering Season: Throughout year

Uses: Troublesome weed in forests and other vegetation, Butterflies feeds on flower nectar. Berries eaten by birds and animals.



Boehmeria macrophylla Hornem.

C

Local Name:

Habit: Shrub

Family : Urticaceae

Habitat : In wet areas, mixed with small size grasses

Key Characters: Shrubs or undershrubs, about 60 cm high; stem angular, covered with dense hairs; leaves heart shaped at base, serrate along margins; flowers greenish white

Flowering Season: Mid Monsoon

Uses:



Launaea procumbens (Roxb.) Ramayya & Rajagopal

C

Local Name: पाथुर्ली

Habit: Herb

Family : Asteraceae

Habitat : In grasses and along small bushes

Key Characters: Small herbs; leaves without axis; flowers born in heads, yellow in colour

Flowering Season: Mid Monsoon

Uses: Grows as weed along grasses



Lavandula bipinnata O. Ktze.

C

Local Name: गोरीया

Habit: Herb

Family : Lamiaceae

Habitat : On slopes mixed among the large size grasses

Key Characters: Annual herbs; stem branched 4 angled, hairy; leaves dissected; flowers blue with white centre

Flowering Season: Late Monsoon

Uses:



Leea indica (Burm. f.) Merr.

C

Local Name: दिंडा

Habit: Herb

Family : Leeaceae

Habitat : Mixed with medium sized grasses and herbs

Key Characters: Shrubs commonly found in moist deciduous forest; stem 4 angled; leaves with dentate margin; young leaves bright red in colour; flowers white **Flowering Season:** Mid Monsoon

Uses:



Lepidagathis prostrata Dalz.

C

Local Name: गुलाबी भुईगेंद

Habit: Herb

Family : Acanthaceae

Habitat : On ground in open areas and hill top region

Key Characters: Herbs growing along ground; stem angular; leaves rigid; flowers born in terminal clusters; white with yellow centre

Flowering Season: Winter



Leucaena latisiliqua (L.) Gill.

Ex

Local Name: सुबाभूळ

Habit: Tree

Family : Mimosaceae

Habitat : Along the hill slopes

Key Characters: Unarmed Tree planted along Road side; compound leaves; Inflorescences dense; Pod flat, linear, dark brown when mature.

Flowering Season: Throughout year

Uses: Introduced fast growing plant used in large scale plantation, used as fodder and burning



***Limonia acidissima* L.**

C

Local Name: कवठ

Habit: Tree

Family: Rutaceae

Habitat: Along the hill slopes

Key characters: Small sized tree; stem covered with straight sharp spines.

Flowering Season: Summer

Uses: The Rind of fruit is uses as utensils or ash tray, Bark is used in Cosmetics and produce edible gum, help to treat diabetis. Wood is used in woodworking. Fruit rind yield oil used as fragrance for hair It is a sacred plant. Fruits edible and good for digestion, it kills intestinal worm and cure chronic dysentery. Leaves are used as fodder for elephant, cure sore throat, chronic cough, Jaundice, Joint pain and other respiratory conditions. Roots are used in earache.



***Lindernia ciliata* (Colsm.) Penn.**

C

Local Name:

Habit: Herb

Family: Scrophulariaceae

Habitat: In wet areas, mixed with small size grasses

Key characters: Much branched herb, about 15 cm high; flowers bluish-pink

Flowering Season: Mid Monsoon

Uses:



***Linum mysurense* Heyne ex Bth.- Undri**

C

Local Name: उंद्री

Habit: Herb

Family: Linaceae

Habitat: Mixed with medium sized grasses and herbs

Key characters: Very common herb growing in grasslands. Herbs branched in upper parts; about 10-40 cm high; flowers yellow

Flowering Season: Mid Monsoon

Uses:



Lycopersicon lycopersicum (L.) Karsten.

C

Local Name: टोमॅटो

Habit: Herb

Family: Solanaceae

Habitat: Near crop fields and human settlements

Key characters: Cultivated herb; much branched, stem and branches hairy; flowers yellow; berries many seeded, red when ripe.

Flowering Season: Throughout year

Uses: Fruits used as vegetable



Madhuca longifolia (Koen.) MacBride

C

Local Name: मोहा

Habit: Tree

Family: Sapotaceae

Habitat: Along the hill slopes, near human settlements

Key characters: Tall trees with linear leaves. Flowers yellowish white, fleshy

Flowering Season: Summer

Uses: Fermented drink is prepared from flowers. Timber used in making furniture, boats. Seeds yield oil which is used in lamps and also edible.



Mallotus philippensis (Lam.) Muell. Arg

C

Local Name: शेंद्री

Habit: Tree

Family: Euphorbiaceae

Habitat: Along the hill slopes

Key characters: Much branched tree, flowers greenish yellow; fruits 3 locular, covered with red powdery substance

Flowering Season: Mid Monsoon

Uses: Glands on fruits yield dye. Bark of tree is used in treatment of leprosy.



***Malvastrum coromandelianum* (L.) Garcke**

C

Local Name: **Habit:** Herb

Family: Malvaceae **Habitat:** Mixed with medium sized grasses and herbs

Key characters: Erect herbs about 1m high; stem, leaves and flower axis covered with hairs; flowers yellow.

Flowering Season: Monsoon

Uses:



***Mangifera indica* L.**

C

Local Name: आंबा **Habit:** Tree

Family: Anacardiaceae **Habitat:** Along the hill slopes, on plains and near human settlements

Key characters: Large tree; bark dark brown; leaves alternate, long, shiny; flowers in terminal clusters, yellow; fruits drupe, green turning yellow on ripening

Flowering Season: Winter

Uses: Stem used as soft wood timber in making furniture. Fruits edible. Unripe fruits used for making pickle. A dye is prepared from roots. It is one of the sacred plants in India.



***Maytenus rothiana* (Walp.) Lobreau–Collen**

C

Local Name: येनकी **Habit:** Shrub

Family: Celastraceae **Habitat:** On hill slope mixed with shrubs

Key characters: Scandant shrub, stem and branches armed, leaves thick, glossy; flowers greenish yellow; fruits 3 lobed

Flowering Season: Summer

Uses: the plant is used as antiulcer.



***Merremia aegyptia* (L.) Urb.**

C

Local Name: उंदीरकानी **Habit:** Climber

Family: Convolvulaceae

Habitat: Grows on trees along the hill slopes

Key characters: Climbers; stem covered with long yellowish hairs; leaves palmately compound; flowers white, funnel shaped

Flowering Season: Late Monsoon

Uses: The stems are used for binding, for frames in house. It can causes diarrhoea in small stock when large quantities are eaten. The dried leaves are used as a dressing for burns.



Miliusa tomentosa (Roxb.) Sinclair

C

Local Name: हुंब

Habit: Tree

Family: Annonaceae

Habitat: Along the hill slopes

Key characters: Deciduous trees, young branches hairy; leaves elliptic in shape; flowers in clusters in axils of leaves; fruits fleshy, stalked, purple red in colour.

Flowering Season: Summer

Uses: Wood is used as fuel and for making charcoal.



Mimosa pudica L.

C

Local Name: लाजाळू

Habit: Herb

Family: Mimosaceae

Habitat: Among the grasses

Key characters: Prostrate herbs; stem covered with spines; leaves compound, made up of 10-20 pairs of leaflets; flowers in globose heads, pink; pods about 2 cm long, covered with yellow hairs

Flowering Season: Late Monsoon

Uses: The root is bitter, acrid, cooling, and used in the treatment of leprosy, dysentery, vaginal and uterine complaints, inflammations, burning sensation, asthma, leucoderma, blood diseases. The root is resolvent, alternative, and useful in the treatment of diseases arising from blood impurities and bile, bilious fevers, piles, jaundice, toothache and leprosy. It is very useful in diarrhoea, amoebic dysentery, bleeding piles and urinary infections. Also for gynaecological disorders, to cure skin diseases. It is also used in bronchitis, healing of wounds, neurological problems, general weakness and impotence.



Mitragyna parviflora (Roxb.) Korth

C

Local Name: कळंब

Habit: Tree

Family: Rubiaceae

Habitat: Along the hill slopes

Key characters: Large tree; leaves crowded at the end of branches; flowers in heads; yellowish- white; fragrant

Flowering Season: Throughout year

Uses: Wood used in making furniture. Heads eaten by birds. Bark is used in blood related problems. The bark and roots are used for fevers, colic, muscular pains, burning sensations in the stomach, poisoning, female problems, coughs, oedema and as an aphrodisiac, leaves as fodder.



Mollugo pentaphylla L.

C

Local Name: झारसी

Habit: Herb

Family: Molluginaceae

Habitat: Mixed in grasses of small size, in open areas

Key characters: Herbs, much branched, stem 4 angled; leaves whorled; flowers greenish or white

Flowering Season: Mid Monsoon

Uses: The Plant is used to treat enteritis, hepatitis, appendicitis, eye disease and cancer.



Morinda citrifolia L.

C

Local Name: बरतौडी

Habit: Tree

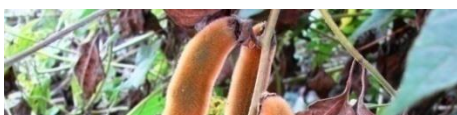
Family: Rubiaceae

Habitat: Near human settlements, crop fields

Key characters: Trees, stem smooth; leaves opposite, shiny; flowers white, tube like

Flowering Season: Mid Monsoon

Uses: It is used to treat high blood pressure, arthritis, ulcers, depression, sprains, menstrual cramps, pain relief, burns, fever, inflammation, food poisoning, intestinal worms, and joint problems. The unripe fruit is used in mouth sores, toothaches, abscesses and as famine food, Ripe fruit juice used to treat diabetes and hypertension. The bark and root are used for yielding dye.



Mucuna pruriens (L.) DC.

C

Local Name: खाजकुहीरू

Habit: Climber

Family: Fabaceae

Habitat: Grows on medium size trees

Key characters: Climber growing along trees; leaves compound, leaflets 3; flowers purple; pods covered with dense bristly hairs causing itching

Flowering Season: Mid Monsoon

Uses: The plant is used in treating pain, cholera, diabetes, infertility, scorpion bites, snakebites, toothaches, increases testosterone, reduces inflammation, kills some parasites, reduces spasms, calms nerves, lowers blood sugar, reduces fever, lowers cholesterol and blood purifier. Also play a role of nitrogen fixation.



Muntingia calabura L.

C

Local Name:

Habit: Tree

Family: Malvaceae

Habitat: Planted and now spreads naturally along the slopes

Key characters: Trees; branches hairy; leaves densely wooly on lower surface; flowers white with many stamens; fruits small about 0.5 cm across, red on ripening

Flowering Season: Throughout year

Uses: Berries provide food for birds and Humans. Flowers are used as antiseptic in the treatment of abdominal cramp. Timber yielding plant and also used as fire wood.



Neanotis tubulosa (G. Don) Mabb.

C

Local Name:

Habit: Herb

Family: Rubiaceae

Habitat: Mixed in grasses of small size, in open areas

Key characters: Annual herbs, much branched; leaves in opposite pairs; flowers purple-white, tube shaped

Flowering Season: Mid Monsoon

Uses: The plant is used remedy for skin disease.



Neolamarckia cadamba (Roxb.) Bosser

C

Local Name: कदंब

Habit: Tree

Family: Rubiaceae

Habitat: Along the hill slopes

Key characters: Large tree, branches drooping; leaves large opposite; flowers in globose ball shaped cluster, white or cream coloured, fleshy, fragrant

Flowering Season: Winter

Uses: It is a sacred plant. Inflorescence and fruits edible. Fresh leaves as fodder for cattle. The timber is low quality and used for plywood, light construction, pulp and paper, boxes and crates, dug-out canoes, and furniture components.



Oplismenus burmannii (Retz.) P. Beauv.

C

Local Name: Kudak, Yerwa

Habit: Herb

Family: Poaceae

Habitat: Near wet areas, among the medium size grasses

Key characters: Slender, diffusely branched herbs. Leaves ovate-lanceolate in shape. Inflorescence about 6-8 cm long. Grains ellipsoid-oblong.

Flowering Season: Mid Monsoon

Uses: It is used as antidotes in venomous stings, bites, also used in cutaneous, subcutaneous parasitic infection; eye treatments; genital stimulants or depressants and pain-killers. also fodder for some animals.



Oroxyllum indicum (L.) Vent.

C

Local Name: टेढ़

Habit: Tree

Family: Bignoniaceae

Habitat: On hill slope area

Key characters: Large tree, leaves compound; flowers yellowish purple; capsules flat, about 30-60 cm long, purple in colour; seeds white, winged

Flowering Season: Monsoon

Uses: Root bark is used in treatment of fever, arthritis. Young shoots and fruits used as vegetable



Paracalyx scariosus (Roxb.) Ali

C

Local Name: रान घेवडा

Habit: Climber

Family: Fabaceae

Habitat: Grows on medium size trees

Key characters: Climbers commonly growing along grasses and small trees. Leaves trifoliate; flowers white-yellow; petals covered with smooth hairs

Flowering Season: Winter

Uses: The plant is in combination with other herbs are used to treat cancer. Seeds are used as food.



Parthenium hysterophorus L.

C

Local Name: गाजर गवत

Habit: Herb

Family: Asteraceae

Habitat: Weed near human settlements and crop fields

Key characters: Herbs about 1m high; stem much branched, angular, hairy; leaves dissected; flowers white

Flowering Season: Late Monsoon

Uses: It is weed. The whole plant is used in skin infections. The plant is used as tonic, febrifuge, and emmenagogue, root decoction is used in dysentery.



Pennisetum pedicellatum Trin.

C

Local Name: दीनानाथ

Habit: Herb

Family: Poaceae

Habitat: Along the road side and in open areas on hill

Key characters:

Flowering Season: Summer

Uses: It is used as fodder. It stops soil erosion.



Pentanema indicum (L.) Ling

C

Local Name: सोनकाडी

Habit: Herb

Family: Asteraceae

Habitat: Well distributed in open areas

Key characters: Herbs; much branched; leaves sessile; flowers in yellow heads

Flowering Season: Winter

Uses: The root is used to relieve abdominal pain and scorpion sting, its decoction is used to relieve fever in children's. Inflorescence as remedy in throat disorders. whole plant are used for ant fertility.



Phoenix sylvestris (L.) Roxb.

C

Local Name: शिंदी

Habit: Tree

Family: Araceae

Habitat: Generally on plain areas

Key characters: Large tree, about 10-15 m high; stems rough showing fallen leaf scars; leaves large, compound similar to coconut, leaflets ending in spines.

Flowering Season: Summer

Uses: Timber used in making furniture. Stem yields sweet, protein rich edible substance. Energy drink 'Neera' is prepared from this plant. Dense leaves provides shelter to many species of birds



Phyla nodiflora (L.) Greene

C

Local Name: गौरमुंडी

Habit: Herb

Family: Verbenaceae

Habitat: Mixed with medium sized grasses and herbs

Key characters: Common annual herb; growing in paddy field. Spreading on ground; stem hairy; flowers pinkish-white

Flowering Season: Mid Monsoon

Uses: The plant is used as anodyne, antibacterial, diuretic, emmenagogue, parasiticide and refrigerant. the plant is used in the treatment of Fever, cough, cold, hookworm, where as root decoction is used in gastric trouble. Leaves are used as anti dote for snake bite and, whole plant is used for hepatitis and against abscess



Phyllanthus fraternus Webster

C

Local Name: भुई-आवली

Habit: Herb

Family: Euphorbiaceae

Habitat: In open areas, mixed with grasses

Key characters: Branched herbs, contains latex, leaves small, ovate, simple; flowers and fruits born below leaves

Flowering Season: Mid Monsoon

Uses: Whole plant used for medicinal purpose in jaundice and latex used in treating boils



Phyllanthus virgatus Forst.

C

Local Name:

Habit: Herb

Family: Euphorbiaceae

Habitat: In open areas, mixed with grasses

Key characters: Herbs, leaves arranged in two rows, flowers greenish yellow

Flowering Season: Mid Monsoon

Uses: The plant is used in treatment of gonorrhoea; leaves are used as wash to cure itches in child, in eye disease.



Pimpinella adscendens Dalz.

C

Local Name:

Habit: Herb

Family: Apiaceae

Habitat: On the hill slope, wet open or shady areas

Key characters: Herbs, leaves compound; flowers in white umbrella like clusters

Flowering Season: Winter

Uses: Seeds are aromatic, are used in confectioneries, used to treat menstrual cramp. The essential oil extracted is used as an insecticide against head lice and mites.



Piper hookeri Miq.

C

Local Name: मिरी

Habit: Climber

Family: Piperaceae

Habitat: Grows on tree trunks or under canopy cover

Key characters: Climbers; leaves opposite, ovate; male and female inflorescence separate; berries globose

Flowering Season: Summer

Uses: It is a sacred plant as climber.



Plumbago zeylanica L.

C

Local Name: चित्रक

Habit: Shrub

Family: Plumbaginaceae

Habitat: Near foothill region

Key characters: Common small shrub; leaves ovate with acute apex; flowers tube like, white, calyx base covered with glandular hairs

Flowering Season: Summer

Uses: Used in treatment of piles, skin diseases. The Bark is used to stop bleeding, cure baldness and treat diarrhoeas. bark, root or leaves Powder are used to treat gonorrhoea, syphilis, tuberculosis, rheumatic pain, swellings and wounds and root bark is useful in obesity. Also, used to correct menstrual disorders, and viral warts.



Pogostemon heyneanus Bth.

C

Local Name: फांगळा

Habit: Shrub

Family: Lamiaceae

Habitat: Along the edges and open areas of hill slopes

Key characters: Shrubs, four angled stem covered with soft hairs; flowers white divided into two lips, upper lip dissected

Flowering Season: Winter

Uses: The decoction of root is used for dropsy, cough and asthma, and as lotion for rheumatism. The poultice of leaves used in boils, headache, jaundice and bilious fevers.



Pongamia pinnata (L.) Pierre

C

Local Name: करंज

Habit: Tree

Family: Fabaceae

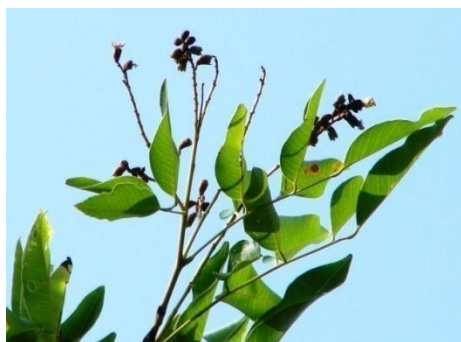
Habitat: Along the hill slopes, near

water sources

Key characters: Common evergreen tree; leaves dark, shining above; flowers purple- pink in large clusters opening from base to apex; fruits about 3-5 cm long, curved, brown

Flowering Season: Summer

Uses: Oil is extracted from seeds is used in soap making. Oil also used as fuel for lamps. Flowers used in preparation of antidiabetic medicines. Plants are commonly planted for recovering abandoned lands.



Pterocarpus marsupium Roxb.

C

Local Name: बिजा

Habit: Tree

Family: Fabaceae

Habitat: Along the hill slopes

Key characters: Large trees, leaves compound, glossy, flowers yellow; fruits flat, bulging at centre

Flowering Season: Winter

Uses: Wood used as timber. Gum exeduted from stem used in medicines for antidysentrics. Leaves used in treatment of boils.



Pterospermum acerifolium (L.) Willd.

C

Local Name: मुचकुंद

Habit: Tree

Family: Fabaceae

Habitat: Along the hill slopes

Key characters: Large trees with smooth ash coloured bark; leaves large about 25-35 cm long, heart shaped, peltate, lower surface covered with smooth wooly hairs; flowers white with yellowish brown covering; fruits dark brown, 5 lobed, seeds winged

Flowering Season: Winter

Uses: Wood used in making railway carriages. Flowers show insecticidal properties. Leaves and bark used in medicines.



Pueraria tuberosa (Roxb. ex Willd.) DC.

C

Local Name: पिठाणा

Habit: Climber

Family: Fabaceae

Habitat: Grows on bushes or shrubs

Key characters:

Flowering Season: Summer

Uses: This is used as a tonic, for headaches, and as aphrodisiac. The roots are used as a demulcent and refrigerant in fevers, in swelling of joints, and as lactagogue. It is also emetic, tonic and galactagogue. It is also used in preparing sexual potency enhancement pills. It is also used in the treatment of cough, constipation, rheumatism, erysipelas and malarial fever.



Rhus mysorensis G. Don

C

Local Name: अमोणी

Habit: Shrub

Family: Anacardiaceae

Habitat: Along the hill slopes mixed with shrubs

Key characters: Shrubs; leaves compound with toothed margin; inflorescence clustered, hair ; flowers greenish yellow

Flowering Season: Mid Monsoon

Uses: The plant is used as fuel, and the branches for fencing fields. The whole plant is used in treatment of diabetes.



Rungia crenata T. And.

C

Local Name:

Habit: Herb

Family: Acanthaceae

Habitat: Commonly found in small size grasses

Key characters: Herbs, branches slender, 4 angular, without hairs, leaves elliptic in shape, flowers blue coloured covered with whitish bracts and bracteoles

Flowering Season: Late Monsoon

Uses: Flowers are used in the treatment of Neurological treatment.



Rungia elegans Dalz.

C

Local Name:

Habit: Herb

Family: Acanthaceae

Habitat: Commonly found in small size grasses

Key characters: Herbs, 15.40 cm high; stems somewhat angular. Leaves elliptic in shape, apex acute or acuminate, base usually rounded. Flowers bluish long spikes. Seeds yellow or brown.

Flowering Season: Late Monsoon

Uses: Flowers are used in the treatment of Neurological treatment.



Samanea saman (Jacq.) Merr.

C

Local Name: रेन ट्री

Habit: Tree

Family: Mimosaceae

Habitat: Planted along the road

Key characters: Large trees with spreading canopy, stem dark brown; flowers pink-white, in heads; pods dark brown with fleshy pulp inside

Flowering Season: Summer

Uses: Cultivated on dry and barren lands for reclamation. Fixes nitrogen in soil. It is a good shade and avenue tree. Tender leaves are used as fodder. It is a good host for lac insect.



Santalum album L.

C

Local Name: चंदन

Habit: Tree

Family: Santalaceae

Habitat: Along the hill slopes

Key characters: Evergreen trees with blackish stem; branches drooping; leaves shining above; flowers born in between leaves; reddish in colour, symmetrical having 4 petals; fruits green turning black on ripening.

Flowering Season: Summer

Uses: Oil is extracted from heart wood which is aromatic. Oil used in perfumery, soap industry etc. Oil has cooling properties thus used in treatment of various diseases. Fruits and seeds eaten by birds and also used as famine food. It is a sacred plant. Wood is smooth and white thus used in carving and making showpieces.



Sapindus laurifolius Vahl.

C

Local Name: रिठा

Habit: Tree

Family: Sapindaceae

Habitat: Along the hill slopes

Key characters: Trees; leaves compound, leaflets large about 5-12 cm long; flowers white, lower parts covered with rusty wooly hairs; fruits globose, yellow turning brown after ripening.

Flowering Season: Winter

Uses: Fruits used as soap- nut, it is used to treat migraines. Fruits also used as fish poison. The plant is used to treat Psoriasis, eczema, insecticide.



***Schrebera swietenoides* Roxb.**

C

Local Name: मोक्ष

Habit: Tree

Family: Oleaceae

Habitat: Along hill slopes

Key characters: Large trees, leaves compound, leaflets unequal at base; flowers yellowish-brown; fruits obovoid in shape

Flowering Season: Summer

Uses: The root, bark and leaves are used as digestive, stomachic, thermogenic, depurative, constipating urinary astringent and anthelmintic. Leaves are used as spleen and in urinary discharges. Roots used in leprosy; bark in boils and bums.



***Scoparia dulcis* L.**

C

Local Name:

Habit: Herb

Family: Scrophulariaceae

Habitat: Near water sources, marshy areas

Key characters: Erect, branched herbs, about 40 cm high; leaves with serrate margin; flowers white; capsules about 0.4 cm; seeds brown.

Flowering Season: Throughout year

Uses: the plant is used to treat diabetes, fever, diarrhoea, ulcer, cancer, wounds, skin rash, cough, tuberculosis, stomach aches, inflammation, bronchitis and hepatitis. The roots are used as an effective remedy for Jaundice and diarrhoea.



***Securinega leucopyrus* (Willd.) Muell. Arg.**

C

Local Name: पांढरफळी

Habit: Shrub

Family: Euphorbiaceae

Habitat: On plateaus and hill top region

Key characters: Shrub, branches slender; bark dark brown,

smooth; leaves small, ovate; flowers white; fruits 3 lobed, white.

Flowering Season: Summer

Uses: Bark used as fish poison. The plant is used in the treatment of wound and cancer, leaves shows antimicrobial activity. The plant is sweet, cooling, diuretic, aphrodisiac and used as tonic, in Pitta, burning sensation, seminal weakness and general debility.



***Semecarpus anacardium* L. f.**

C

Local Name: बिब्बा

Habit: Tree

Family: Anacardiaceae

Habitat: Along the hill slopes

Key characters: Trees, leaves obovate, hairy on underside, apex blunt; flowers in large clusters, flowers covered with smooth hairs; flowers greenish-yellow; fruits formed on fleshy receptacle, blackish when ripen.

Flowering Season: Winter

Uses: Seeds are used as antiasthmatic, used in headache. The fruit and nut extract are used as antiatherogenic, antioxidant, antiinflammatory, antimicrobial, anti-reproductive, and hair growth promoter are used to treat in skin diseases like warts, ringworm, scabies, psoriasis, eczema and corns. It is also used to treat respiratory complaints, chronic, cough, and asthma.



***Sesbania sesban* (L.) Merr.**

C

Local Name: शेवरी

Habit: Tree

Family: Tiliaceae

Habitat: Along the hill slopes

Key characters: Shrubs, 2–4 m high. Leaflets linear–oblong. Flowers yellow, many, in racemes. Pods linear, twisted.

Flowering Season: Throughout year

Uses: The tree is playing an important role of nitrogen fixation. The plant is used as green manure and making shades and shelters. The wood is used as fuel wood and charcoal production. Bark is used to prepare fishing net and ropes. The roots and leaves are used in the treatment of scorpion stings, Jaundice, boils and abscesses.



***Setaria pumila* (Poir.) R. & S.**

C

Local Name: Kolu, Kolwa

Habit: Herb

Family: Poaceae

Habitat: Along the road side and in open areas on hill

Key characters: Annual grass commonly growing along roadsides and waste places. Herbs about 20-60 cm high, spreading, ascending. Leaves linear, narrow. Spikes 1.5- 5 cm long, brownish in colour.

Flowering Season: Late Monsoon

Uses: Common weed. Seeds are cooked and eaten.



Sida acuta Burm. f.

C

Local Name: बला

Habit: Herb

Family: Malvaceae

Habitat: Mixed with medium sized grasses and herbs

Key characters: Small branched shrubs, braches softly hairy when young,. Leaves 1–9 x 0.5–2.5 cm, elliptic or ovate in shape. Serrate at margins. Flowers 8–10 mm across, light yellow coloured

Flowering Season: Late Monsoon

Uses: It is used to make course cordage. The stems are also used for brooms and baskets. The roots are used as antipyretic, coolant, astringent, diaphoretic and it is a tonic useful in nervous and urinary diseases, disorders of the blood and bile. The leaves are used on testicular swellings, elephantiasis and to hasten suppuration. The extract is used to cure Fever and asthma.



Sida cordata (Burm.f.) Borss.

C

Local Name: महाबला

Habit: Herb

Family: Malvaceae

Habitat: Mixed with medium sized grasses and herbs

Key characters: Herbs, about 50 cm high. Leaves 1–5 x 1–4 cm, orbicular. Flowers pale yellow, born in leaf axils singly. Fruits tetrahedral with rounded angles. Seeds ovoid in shape, about 2 mm long.

Flowering Season: Summer

Uses:



Sida rhombifolia L.

C

Local Name: अतिबला

Habit: Herb

Family: Malvaceae

Habitat: Mixed with medium sized grasses and herbs

Key characters: Herbs or undershrubs, 0.8–1.0 m high. Leaves 1–

8 x 0.7–4.0 cm, often more or less rhomboid, margins serrate to crenate towards apex. Flowers yellow to pale orange. Mericarps 7–12, seeds c 2 mm across, brown or black.

Flowering Season: Mid Monsoon

Uses: The plant is used in the treatment of fever as well as a diuretic. leaves are used to relieve swelling, the fruits are used to relieve headache, an emollient, and the root is used to treat rheumatism. Leaves are used to prepared Tea in India.



***Solanum anguivi* Lam.**

C

Local Name: रिंगणी

Habit: Herb

Family: Solanaceae

Habitat: Mixed with medium sized grasses and herbs

Key characters: Undershrubs or shrubs c 1.5 m high. Leaves 3.10 x 1.5.6.0 cm, broadly elliptic or elliptic.oblong or ovate, prickly on nerves. Inflorescence of racemose cymes. Flowers blue. Berries globose, yellowish.red when ripe. Seeds orange, spherical.

Flowering Season: Mid Monsoon

Uses: The plant is used as nourishing vegetable and medically to control high blood pressure and diabetes. It shows antioxidant activity. The green fruits are eaten as vegetables.



***Soperbia delphinifolia* (L.) G.Don**

C

Local Name:

Habit: Herb

Family: Scrophulariaceae

Habitat: In wet areas, open hill tops

Key characters: Herbs, c 45 cm high, erect, branched. Leaves dissected. Flowers pale purple or white, axillary.

Flowering Season: Mid Monsoon

Uses: The juice of whole plant is used in heal sore on the feet caused by exposure to moisture.



***Spermacoce articularis* L. f.**

C

Local Name: मदन घंटी

Habit: Herb

Family: Rubiaceae

Habitat: Mixed in grasses of small size, in open areas

Key characters: Annual herbs, about 15-25 cm high. Leaves elliptic in shape. Flowers white or pale pink to bluish-pink, borne in axils.

Flowering Season: Late Monsoon

Uses: The plant are used in the treatment of malaria, diarrhoeal and other digestive problems, skin diseases, fever, urinary and respiratory infections, headache, inflammation of eye, and gums.



Spermacoce pusilla Wall.

C

Local Name: **Habit:** Herb

Family: Rubiaceae **Habitat:** Mixed in grasses of small size, in open areas

Key characters: Herbs, annual, about 10-35 cm high; stems 4.angled. Leaves narrow linear in shape. Flowers white, in whorls. Capsules ovoid, 0.2-0.3 cm long

Flowering Season: Mid Monsoon

Uses: It is weed.



Spondias pinnata (L.f.) Kurz.

C

Local Name: आंबाडा **Habit:** Tree

Family: Anacardiaceae **Habitat:** Along the hill slopes

Key characters: Trees, 9–15 m tall. Leaves compound. Leaflets 5–15 x 3–6 cm, oblong or elliptic, apex acuminate, margins entire or serrate. Inflorescence of terminally borne clustered greenish–white. Fruits with hard stone.

Flowering Season: Winter

Uses: Tender leaves, flowers, and fruits are edible. Fruits eaten raw; can be made into jams, jellies and juices. The Bark is used in the Treatment of diabetes. Leaves Bark and fruits used the treatment of burns, sores and wounds. The plant is also used in the treatment of dysentery and diarrhoea, rheumatism, vomiting.



Sporobolus indicus R.Br.

C

Local Name: **Habit:** Herb

Family: Poaceae **Habitat:** Along the road side and in open areas on hill

Key characters: Perennial herbs, erect, about 20-50 cm tall, tufted. Leaves narrow, linear. Inflorescence pyramidal in shape. Grains

obovoid, reddish brown in colour.

Flowering Season: Winter

Uses: The seeds are edible and nutritious. Fruits are used as diuretic and antispasmodic, and its decoction is used in wounds and heals sores in the mouth. Leaves are used for fibres production.



Stephania japonica (Thunb.) Miers.

C

Local Name: पहाड वेल

Habit: Climber

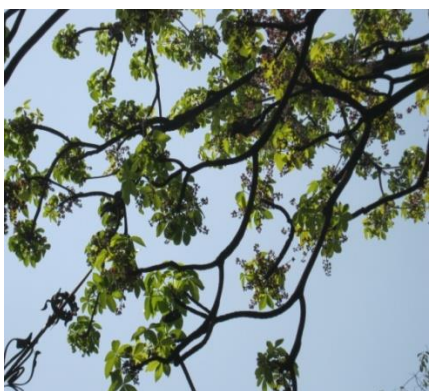
Family: Menispermaceae

Habitat: Grows on bushes or shrubs

Key characters: Slender climbers with tuberous roots. Leaves ovate in shape ending in shortly acuminate apex. Male and female flowers borne separately. Flowers greenish-yellow in umbellate heads. Drupes 0.4–0.8 cm across, globose, red.

Flowering Season: Monsoon

Uses: Plant is used to cure itches, in the treatment of urinary and heart related disorders, skin sores, ulcers, furuncles, snake bites, stomach pains and leg edema, where as roots used for treatment of fever, diarrhoea, dyspepsia and urinary diseases.



Sterculia foetida L.

C

Local Name: जंगली बदाम

Habit: Tree

Family: Sterculiaceae

Habitat: Along the hill slopes

Key characters: Large trees with whitish bark. Leaves digitate; leaflets 5–9, covered with soft hairs when young. Flowers reddish, c 1 cm across, in clusters. Follicles 1–5 in together, 10–13 cm long, boat-shaped, shortly Beaked at apex, thick and woody, bright red when ripe. Seeds numerous.

Flowering Season: Summer

Uses: Seeds are edible, oil is extracted from it. Leaves are used as fodder. Bark is used for making of cord. Timber is used for making of toys. Gum is extracted from the plant are various applications like book binding, Medicinal, Industrial and paper industries. Leaves and Bark are Medicinally important.



Sterculia guttata Roxb. ex DC.

C

Local Name: वांद्री

Habit: Tree

Family: Sterculiaceae

Habitat: Along the hill slopes

Key characters: Large trees, 15–20 m tall; bark slightly cracked. Leaves 15–20 long and 7–12cm wide, ovate to oblong in shape, apex acuminate, base rounded or

subcordate. Flowers 1.5–2.5 cm across, in 8–14 cm long, hairy clusters. Follicles 1–5 in group, 6 x 11 cm, bright red or deep orange when ripe. Seeds 2 x 1 cm, ellipsoid or oblong, black.

Flowering Season: Winter

Uses: Seeds are used as insecticides against Mosquito larvae. Leaves and bark are used in medicines. The seed are eaten as row or roasted by Tribes during the food scarcity.



Sterculia urens Roxb.

C

Local Name: कांडोळ

Habit: Tree

Family: Sterculiaceae

Habitat: Along the hill slopes

Key characters: Trees, c 10 m high; young parts covered with soft hairs, bark white, smooth, papery. Leaves 20–23 cm long, as broad as long, crowded at tips of branches, shallowly 5-lobed. Flowers 6–9 mm across. Follicles 4–6 in group, c 2.5 x 1.5 cm, oblong. Seeds 3–6, oblong, dark.

Flowering Season: Winter

Uses: Gum is extracted from the plant which has multidisciplinary applications like Medicinal, industrial, Paper pulp, leather, Textile, food industry and Cosmetics.



Striga densiflora (Bth) Bth.

C

Local Name:

Habit: Herb

Family: Scrophulariaceae

Habitat: Open areas, in grasses on hill tops

Key characters: A small annual herbs, about 30 cm high. Leaves sessile, 1.5- 2.5 cm long, narrow. Inflorescence of slender spikes born in axil of floral bracts. Flowers white. Commonly grows along grasses during mansoon.

Flowering Season: Mid Monsoon

Uses: It is weed.



Stylosanthes fruticosa (Retz.) Alst.

C

Local Name:

Habit: Herb

Family: Fabaceae

Habitat: Mixed with medium sized grasses and herbs

Key characters: Herbs or undershrubs. Leaves composed of 3 leaflets, lanceolate in shape, apex mucronate, base subacute.

Flowers yellow, solitary, axillary. Pods oblong c 0.5 cm long.

Flowering Season: Late Monsoon

Uses: Leaves are used as meal for pig and poultry. Used in pasture in mixtures with perennial grasses.



Swietenia mahagoni (L.) Jacq.

C

Local Name: मोहगणी

Habit: Tree

Family: Meliaceae

Habitat: Planted along the road

Key characters: Trees, 18–22 m tall; bark greyish–black in colour. Leaves compound, leaflets 2–4 pairs, 3–5 cm long, opposite, base very oblique, lanceolate or ovate in shape. Flowers greenish–yellow, in axillary, pendulous panicles. Capsules, ovoid or ellipsoid. Seeds many, flat, winged.

Flowering Season: Summer

Uses: Wood is mainly used for the construction of ships, furniture and musical instruments. Seeds are used to cure diabetes. It is also grown as ornamental tree in many gardens.



Syzygium cumini (L.) Skeels.

C

Local Name: जांभूळ

Habit: Tree

Family: Myrtaceae

Habitat: Along the slopes

Key characters: Trees, 8–15 m high; bark thick, whitish, rough. Leaves elliptic–oblong in shape, glossy on upper surface, apex acute to acuminate, base narrowed. Flowers white crowded in heads on calyx cup shaped, petals white, stamens many in number. Berries 1.5–2.2 x 1.0–1.5 cm, oblong or ovoid, purple, fleshy.

Flowering Season: Summer

Uses: This tree has religious importance. Leaves are used in marriage decorations. Wood is used for making agricultural implement. Fruits are widely used to cure diabetes. The bark is sweet, digestive and astringent and used for the treatment of sore throat, bronchitis, asthma, thirst, biliousness, dysentery, and blood purification.



Tamarindus indica L.

C

Local Name: चिंच

Habit: Tree

Family: Caesalpiniaceae

Habitat: Along the hill slopes and on plains, near crop fields

Key characters: Large trees bearing compound leaves of leaflets c 14 pairs. Flowers yellowish white with red streaks on petals, born at tips of braches. Pods 10–15 x 0.5–2.5 cm, subcompressed, brown. Seeds upto 12, obovoid–oblong, shiny, reddish brown.

Flowering Season: Summer

Uses: The pulp is used in curries and sauces, seasoning, in prepared foods, and as a major ingredient in juices and other beverages. Kernel powder is used in textile, paper and jute Industries. Seeds used as source of proteins. Leaves and flowers are eaten as vegetables. The leaves show antioxidant, anti-inflammatory, antimicrobial and anti-fungal activity. The fruit is used on foreheads in fever sufferers. This plant is also used as Timber, for Metal polish and in Horticulture.



Tectona grandis L.

C

Local Name: साग

Habit: Tree

Family: Verbenaceae

Habitat: Along the hill slopes and on plains

Key characters: Large trees, grows upto 50 m tall. Leaves 30-60 long and 15-30 cm broad, elliptic or obovate in shape, apex acute or acuminate, upper surface glabrous and rough, lower surface grey, covered with smooth hairs. Flowers born in branched clusters terminally. Flowers white. Drupes subglobose.

Flowering Season: Mid Monsoon

Uses: This is most important and widely used hard wood Timber plant. Wood is used as food by many species of larvas. Teak is extensively used in boat decks, due to durability and low maintenance. The seeds are used as hair tonic.



Terminalia bellirica (Gaertn.)Roxb.

C

Local Name: बेहडा

Habit: Tree

Family: Combretaceae

Habitat: Along the hill slopes

Key characters: Large trees, 15–20 m tall; young parts rufous pubescent. Leaves crowded at the end of branches and thus the name 'Terminalia'. Leaves large about 8–15 long and 6–10 cm broad, obovate or broadly elliptic in shape, covered with smooth hairs on both sides. Flowers yellowish–brown, in leaf axils, foetid

in smell. Drupes subglobose, 3 x 2 cm, softly hairy.

Flowering Season: Summer

Uses: The plant is used for high cholesterol, digestive disorders diarrhoea, constipation, and indigestion. They have also been used against HIV infection. It is also used to protect the liver as respiratory tract, and in cough, and sore throat.



Terminalia elliptica Willd.

C

Local Name: आईन

Habit: Tree

Family: Combretaceae

Habitat: Along the hill slopes

Key characters: Large trees, 3–20 m tall; bark dark brown, rough, deeply cracked. Leaves 5–17 x 2.5–8.0 cm, elliptic to elliptic-lanceolate in shape, shows presence of pair of glands at the base of leaf lamina. Flowers yellowish–brown or greenish–yellow, in branched panicles. Drupes winged, 2.4–4.0 cm across, obovoid–oblong, dark brown or reddish.

Flowering Season: Summer

Uses: The wood is used for making of furniture, cabinetwork, joinery, boat-building, railroad cross-ties, and decorative veneers. Leaves are used as for silkworms. Bark is used in diarrhoea, yielding tannin and dye.



Thunbergia fragrans Roxb.

C

Local Name:

Habit: Climber

Family: Thunbergiaceae

Habitat: Spreads along the hill slopes

Key characters: Slender, herbaceous twiners. Leaves 5.7 x 1.3.5 cm, ovate-lanceolate in shape, arrow like at base, margins subentire-sinuate. Flowers white, upto 3 cm. Capsules 2-2.5 cm long, glabrous, shining. Seeds 0.4.0.5 cm, rugose.

Flowering Season: Late Monsoon

Uses: Planted in gardens as an Ornamental plant.



Tonningia axillaris (L.) O.Kuntze.

C

Local Name:

Habit: Herb

Family: Commelianaceae

Habitat: Near wet areas, among the medium size grasses

Key characters: Annual slender herbs; stem branched leafy, creeping. Leaves sessile, thick, narrow, linear, apex acute. Flowers violet-blue.

Flowering Season: Mid Monsoon

Uses: Warm leaf juice is dropped into ear to get relief from inflammation in the eardrum.



Trema orientalis (L.) Bl.

C

Local Name: घोळ

Habit: Tree

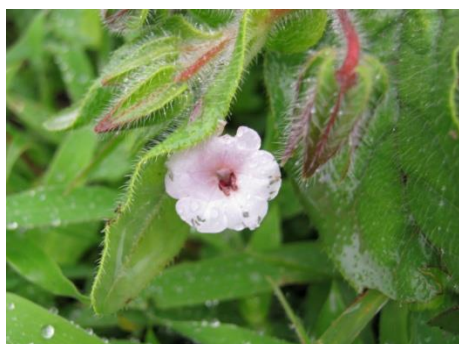
Family: Ulmaceae

Habitat: Along hill slopes

Key characters: Trees, 3.5 m high; bark ash coloured; young branchlets and stipules white pubescent. Leaves obliquely ovate, 5-14 x 0.8-1.5 cm, apex acuminate, serrulate along margins; Flowers in axillary cymes, greenish-yellow or creamy-white. Drupes ovoid or sub globose, c 0.3 cm across, ripens black.

Flowering Season: Winter

Uses: The wood is used for paper and pulp production and charcoal. The bark is used for making string or rope, and used as waterproofing fishing-lines. The bark is used in coughs, sore throats, asthma, bronchitis, toothache, and antidote to general poisoning.



Trichodesma indicum (L.) Lehm.

C

Local Name: पातळ धुंडी

Habit: Herb

Family: Boraginaceae

Habitat: Mixed with medium sized grasses

Key characters: Common annual herbs, 15-60 cm high, erect; stem and branches hairy. Leaves 3-9 x 0.6 - 4.5 cm, ovate-oblong in shape, hairy on both sides, apex acute or obtuse, base auriculate. Flowers pale blue or pinkish white, up to 1.8 cm long, solitary or in few flowered terminal cymes; calyx deeply divided, hispid hairy; corolla infundibuliform, lobes ovate to rounded.

Flowering Season: Late Monsoon

Uses: The root is used to cure diarrhoea, dysentery, leprosy, skin diseases and fever. The decoction of root is used in diarrhoea, dysentery, and fever.



Tridax procumbens L.

C

Local Name: दगदफूल

Habit: Herb

Family: Asteraceae

Habitat: In open areas, mixed with grasses

Key characters: Annuals or perennials, erect or procumbent herbs, branched at base. Leaves opposite, ovate or lanceolate, margins serrate. Flowers in heads produced on erect peduncles, 10-25 cm long; ray florets white, disc florets tubular, yellow.

Calyx hairy, thread like called 'Pappus'.

Flowering Season: Throughout year

Uses: The plant show activities like antiviral, anti oxidant antibiotic efficacies, wound healing activity, insecticidal and anti-inflammatory. The leaf juice is used to cure fresh wounds, to stop bleeding, as a hair tonic.



Typha angustifolia L.

C

Local Name: पान कणीस

Habit: Herb

Family: Poaceae

Habitat: Near wet areas, among the medium size grasses

Key characters: Herbs growing in marshy places, about 1-2 m high. Leaves linear, thick forming sheathing leaf base. Male and female flowers born on same inflorescence but separated by considerable interval, brown in colour.

Flowering Season: Late Monsoon

Uses: Rushes of the leaves often dried for later use in chair seats. The rhizomes are nutritious with protein content comparable to that of maize or rice. Stems and leaves are used to make paper. Also used to yield fibres and bio fuel. This is good breeding place for amphibians and some insects.



Verbascum chinense (L.) Sant.

C

Local Name: कुटकी

Habit: Herb

Family: Scrophulariaceae

Habitat: In small sized grasses

Key characters: Annual herbs, about 60-90 cm high. Leaves dissected, lower leaves large; upper smaller. Inflorescence of simple or branched terminal raceme; flowers yellow. Capsules c 0.6 cm across, subglobose. Seeds oblong, warty.

Flowering Season: Late Monsoon

Uses: This plant is used in treatment of Respiratory tract, skin, veins, gastrointestinal diseases and locomotors system.



Vernonia cinerea Lees

C

Local Name: सहदेवी

Habit: Herb

Family: Asteraceae

Habitat: In open areas, mixed with grasses

Key characters:

Flowering Season: Mid Monsoon

Uses: The plant has good remedy against gastrointestinal diseases, Respiratory diseases, Urinary tract diseases, skin diseases, gynaecological diseases and fever. This plant is also used in the treatment of snake bite and scorpion sting.



Vernonia divergens (Roxb.) Edgew.

C

Local Name: भुंडारा

Habit: Shrub

Family: Asteraceae

Habitat: Mixed with shrubs along the slopes

Key characters: Shrubs, upto 1.5 m tall. Leaves 6.11 x 3.5 cm, elliptic in shape, acute at apex. Flowers in purple heads composed of branched corymb inflorescence.

Flowering Season: Winter

Uses: leaves of the plant are used to cure diabetes.



Vigna sublobata (Roxb.) Babu & Sharma

C

Local Name: Ran-Udid

Habit: Climber

Family: Fabaceae

Habitat: Grows on bushes or shrubs

Key characters: Herbs, twining or suberect; stem hairy. Leaflets 3, 3.6–12.0 x 2.5–7.0 cm, ovate or ovate-rhomboid in shape, hairy, base rounded. Flowers yellow, 2–6 in axillary racemes. Pods 2.8–4.0 cm long, linear-cylindric, grey, hairy.

Flowering Season: Throughout year

Uses: This species is used as breeding genotype in hybridization.



Vigna trilobata (L.) Verdec.

C

Local Name: रान तुर

Habit: Climber

Family: Fabaceae

Habitat: Grows on bushes or shrubs

Key characters: Herbs, suberect or trailing. middle lobe larger than lateral ones, hairy on both sides.. Pods 1–2 cm long, slightly curved. Seeds 2–5, brownish-black.

Flowering Season: Mid Monsoon

Uses: the pods are eaten as a vegetable, and seeds cooked. The plant is cold and sweet on digestion, constipating and aphrodisiac. Leaves are used in weak eyes, also used in irregular fever.



Woodfordia fruticosa (L.) Kurz.

C

Local Name: धायटी

Habit: Shrub

Family: Lythraceae

Habitat: In open areas along hill top region

Key characters: Shrubs or undershrubs, 2–3 m tall. Leaves 3.5–8.0 x 1.2–2.5 cm, oblong–lanceolate in shape, glabrous above and glandular punctate beneath. Flowers red, in racemes in axils of fallen leaves. Capsules 0.8–1.0 cm long, ellipsoid, enclosed by persistent calyx tube.

Flowering Season: Summer

Uses: The flowers are astringent, depurative, uterine sedative, constipating, antibacterial, corrective of urinary pigments and febrifuge. used in the treatment of kapha and pitta, leprosy, burning sensation. Dried flower powder is used in ulcers and wounds. Flowers juice used to treat headache.



Wrightia tinctoria R. Br.

C

Local Name: काळा कुडा

Habit: Tree

Family: Apocynaceae

Habitat: Along the hill slopes

Key characters: Trees, about 3–4 m tall. Leaves broad, acuminate at apex. Flowers white, fragrant, in terminal cymes. cylindrical in shape, Seeds with bunch of hairs at apex.

Flowering Season: Summer

Uses: it is used in fever, stomach ache, skin diseases, psoriasis and non-specific dermatitis. It shows anti-inflammatory and anti-dandruff properties, used in the preparations hair oils.



Xanthium indicum Koen.

C

Local Name: लांडगा

Habit: Shrub

Family: Asteraceae

Habitat: Weed, generally observed along crop fields

Key characters: Annual undershrubs, stem rough covered with short hairs. Leaves hairy. having 2 erect mucronate beaks, covered with hooked prickles. Achenes c 1 x 0.4 cm, oblong or ovoid, compressed, black.

Flowering Season: Winter

Uses: The whole plant is used in the treatment of Ayurveda as cooling, tonic, digestive, antipyretic, and improves appetite, voice, complexion, and memory. But in some cases this plant is recorded as toxic.



Zizyphus mauritiana Lamk.

C

Local Name: बोर

Habit: Tree

Family: Rhamnaceae

Habitat: hill slopes and in plains

Key characters: Small tree, stem and branches covered with hooked spines. Leaves ovate–elliptic with rounded ends, slightly oblique at base. Fruit globose, fleshy, yellow or orange when ripe.

Flowering Season: Summer

Uses: The fruits are eaten as raw, applied on cuts and ulcers, pickled or used in beverages. The plant is also used as fodder and timber yielding. The bark decoction is useful in diarrhoea and dysentery. The bark paste is applied on sores.



Zizyphus rugosa Lamk.

C

Local Name: तोरण

Habit: Tree

Family: Rhamnaceae

Habitat: Along the hill slopes

Key characters: Straggling shrubs, c 4 m tall; stems and branches armed. Flowers in long peduncled, tomentose, paniculate cymes on leafless spinous branches. Drupes 0.6–0.8 cm across, whitish when ripe.

Flowering Season: Winter

Uses: Fruits are good source of essential nutrition for the human health and also used in the treatment of throat and bronchitis. The dried powder of leaves and fruits are applied in the treatment of boils.



Zornia gibbosa Span.

C

Local Name: लांडगू

Habit: Herb

Family: Fabaceae

Habitat: Mixed in grasses, on gravelly soil of grassland.

Key characters: Prostrate herbs, diffuse or suberect, 10–30 cm high. Leaflets 2, linear–lanceolate or ovate in shape, black–dotted beneath. Flowers yellow, 3–12, in terminal and axillary, spicate racemes. Pods 1–2 cm long, concealed by

leafy peltate bracts. Seeds yellowish–brown.

Flowering Season: Mid Monsoon

Uses: The whole plant is used in dysentery and roots as a soporific given to children. Also used in Sores and boils, snake bites, cold.

Effective use of slogans and dustbins to behave in a eco-friendly manner

Waste water from canteen and washrooms released into Sock pit

Greenery from all the sides of the college campus

Team of Assessors

- * Dr. B.R. Mardikar
Scientist, M.B.B.S., M.D., M.S. Ph.D
- * Dr. B.G. kulkarni
Scientist, Botanical Survey of India
- * Dr. Swapnil Sheth (9860965856)
Environmental Expert
- * Ar. Indrayani Dasare
Architect, Green Building