

Satlasana, Mehsana

**Prepared by** 



Special Consultative Status with the Economic and Social Council of United Nations from 2021



#### GREEN UNIVERSITY AUDIT REPORT Academic Year 2023 - 2026

## **AUDITOR'S VIEW**



As a leading advocate for ecological sustainability, Green Mentors takes great pride in presenting the Global Readiness in Ensuring Ecological Neutrality Audit Report & Accreditation Certificate to Smt. R M Prajapati Arts College, Satlasana, Mehsana district of Gujarat State.

Our organization, with special consultative status with the Economic and Social Council (ECOSOC) of the United Nations and a Greening Education partner of UNESCO, commends the efforts of Smt. R M Prajapati Arts College in promoting environmental consciousness and sustainability within its educational practices.

This report was prepared in collaboration with the Green Auditing Team of Smt. R M Prajapati Arts College meticulously evaluates the institution's impact on the local environment and identifies strategies for improvement.

By systematically assessing governance, academics, infrastructure, landscaping, water and energy usage, air quality, health and hygiene standards, and resource utilization, the report provides a comprehensive overview of the college's commitment to sustainability.

Smt. R M Prajapati Arts College has demonstrated remarkable dedication to environmental stewardship, earning **364** out of **500** points and achieving a Gold Ranking in the Green University Accreditation Standards for the Academic Year 2023-2026.

This achievement reflects the college's proactive approach to responsible resource management and unwavering commitment to fostering a green and sustainable campus environment.

Green Mentors commends Smt. R M Prajapati Arts College for its exemplary efforts and leadership in sustainability.

By setting a high standard for institutions worldwide, the college is a beacon of inspiration for other educational institutions to follow.

We look forward to witnessing the continued impact and leadership of Smt. R M Prajapati Arts College is in the field of sustainability, and we stand ready to support its ongoing initiatives for a greener future.

**Virendra Rawat** Director, Green Mentors

GOOD FOR PUPIL & GOOD FOR PLANET









#### SUSTAINABILITY WEIGHTAGE OF ASSESSMENT AREAS



## **Certification Level**

Rejection	Certification	Silver	Gold	Platinum
000-100 Points	100-200 Points	200-300 Points	300-400 Points	400-500 Points







#### Smt. R. M. Prajapati Arts College Satlasana, Mehsana

#### **ACCREDITED CERTIFICATE**







#### **Brief Introduction of College**

Smt R. M. Prajapati Arts College, situated in the serene locale of Satlasana within the Mehsana district of Gujarat State, stands as a beacon of academic excellence and holistic education.

Founded in 1996 under the name Smt R. M. Prajapati Arts College, our institution embarked on a journey of enlightenment and empowerment in the pursuit of knowledge dissemination and societal betterment. In 2003, with the generous support of philanthropist Shri Babulal Punamchand Shah, a new edifice was erected, leading to the renaming of our esteemed trust as Shri Babulal Punamchand Shah Vidhyasankul.

Aligned with Hemchandracharya North Gujarat University, Patan, our college has continuously strived for academic brilliance and holistic development.









### **Institutional Strength**

#### Vision

Our vision is to provide higher education opportunities to local youth, particularly girls residing in remote rural and tribal areas, to equip them with the necessary skills and knowledge aligned with the social and economic demands. We strive to nurture the holistic development of students, empowering them to become valuable contributors to the nation's progress.

#### Mission

Our mission is dedicated to empowering rural youth, especially girls, by offering access to quality higher education. We aim to facilitate their educational, intellectual, social, and moral growth, instilling in them a sense of social, economic, and national responsibility.

# Furthermore, the college's achievements and initiatives contributing to environmental sustainability are highlighted:

Our institution has garnered accolades for its relentless pursuit of excellence. Recognized as a College with Potential for Excellence by the UGC in 2012, our commitment to academic innovation and student-centric learning has been acknowledged numerous times.

Notably, our college has been conferred with a three-star rating and CGPA of 2.09 out of 5 in the college's category by GSIRF in 2019, further reaffirming our dedication to quality education. This recognition was further augmented in 2021 when we received a three-star rating with a CGPA of 3 out of 5, underscoring our sustained efforts towards academic excellence.

Additionally, our institution takes pride in its environmental stewardship, maintaining a clean, ecofriendly campus conducive to learning and growth. With many add-on courses, highly qualified faculty, and specialized coaching for competitive exams, we ensure holistic development and career readiness for our students. Our proactive approach to student welfare includes:

- Continuous evaluation.
- Provision of health cards.
- Accessible primary health treatment.
- The establishment of a Poor Student Relief Fund.

Moreover, our infrastructure boasts modern amenities such as well-equipped audio-visual classrooms, smart classrooms, a state-of-the-art library, a gymnasium, a research center, and indoor sports facilities. Emphasizing inclusivity, we have dedicated facilities such as girls' rooms equipped with sanitary pad machines and robust mechanisms like an Anti-Ragging Cell and Grievance Redressal Committee to ensure a safe and conducive learning environment for all.







## Programs Offered

Our institution offers diverse academic programs catering to various interests and career aspirations. From certificate courses in sewing to postgraduate degrees in disciplines like sociology and library science, we endeavor to provide comprehensive academic offerings that equip our students with the knowledge and skills needed to thrive in an ever-evolving global landscape.

Smt R. M. Prajapati Arts College is a testament to our unwavering commitment to academic excellence, environmental sustainability, and holistic development. As we embark on this journey of self-assessment through the Green Audit Report, we remain steadfast in our dedication to fostering a culture of learning, innovation, and social responsibility.

Sr. No	Certificate	Diploma	Under Graduate	Post Graduate	Research / Ph.D.
1	Sewing	-	B.A. in Gujarati	M.A. in Gujarati	Gujarati
2	NCC B	-	B.A. in Hindi	M.A. in Hindi	Hindi
3	NCC C	-	B.A. in Sanskrit	M.A. in Sanskrit	Sanskrit
4	Spoken English	-	B.A. in English	M.A. in English	Sociology
5	Scope	-	B.A. in Sociology	M.A. in Sociology	Library Science
6	Finishing School	-	-	-	-

## Number of students

Certificate	Diploma	Under Graduate	Post Graduate	Research / Ph.D.
257	-	2378	581	-







## List of Teaching Staff

Sr. No	Name	Designation	Qualification
1	Dr. J. N. Barot	Principal	M.A. B.Ed. Ph.D.
2	Shri. V. K. Pagi		M.A.
3	Dr. M.A.Patel		M.A., M.PhiL., Ph.D.
4	Dr. R. R. Joshi		M.A., Ph.D.
5	Dr. K. S. Jadav		M.A., Ph.D.
6	Shri. V. H. Parmar	Asso. Professor	M.A. (NET)
7	Dr. V. G. Chudhari		M.A., M.Lib & I.sc., Ph.D.
8	Shri. D. T. Parmar		M.A.
9	Dr. B. K. Prajapati		M.A., B.Ed. M.Phil, Ph.D.
10	Dr. R. S. Prajapati		M.A., M.Phil, Ph.D.
11	Dr. D. K. Desai		M.A.(Lit) M.A. (ELT), Ph.D.
12	Dr. B. S.Patel		M.A. (Lit), Ph.D.
13	Dr. K. B. Chaudhari		M.A., B.Ed. M.Phil, SLET
14	Dr. Y. D. Patel	Assi. Professor	M.A. B.Ed. NET
15	Dr. S. K. Joshi		M.A. M.Phil. Ph.D. SLET
16	Dr. M. D. Gamit		M.A. B.Ed. M.Phil. Ph.D. SLET
17	Dr. M. B. Chaudhari		M.A. M.Phil. Ph.D. SLET
18	Dr. D. K. Rohit		M.A. B.Ed. M.Phil. Ph.D. NET
19	Shri. D. G. Patel	PTI	B.P.E.M.P.E.

## List of Non -Teaching Staff

Sr. No	Name	Designation	Qualification
1	Dr. B. K. Chaudhari	Librarian	M.Sc., M.L.& I.Sc., Ph.D.
2	Shri P. A. Maheta	Head. Clerk	B.Com.
3	Shri A. J. Patel		H.S.C.
4	Shri V. G. Raval	Juni. Clerk	B.Com.
5	Shri V. C. Chaudhari		M.A.
6	Shri P. J. Prajapati	Peon	S.S.C.
7	Shri B. F. Chauhan		7th Pass
8	Shri K. S. Taral	Watchman	9th Pass



A Green University is an institution of higher education that prioritizes sustainability and environmental stewardship in its operations, curriculum, and community engagement. As such, academic practices in a Green University are centered around sustainable principles and procedures.

**Sustainable Curriculum:** A Green University may offer programs focusing on environmental sustainability, such as Environmental Science, Sustainable Development, Green Energy, and more.

**Green Research:** A Green University may prioritize research on environmental sustainability, climate change, and green technologies. Researchers at Green University may work on projects that seek to find innovative solutions to environmental challenges, such as developing renewable energy sources or reducing carbon emissions.

**Sustainable Campus Operations:** A Green University may prioritize sustainable campus operations by implementing sustainable practices such as energy-efficient buildings, renewable energy sources, sustainable transportation, waste reduction and recycling programs, and more.

**Community Engagement:** A Green University may engage with the local community to promote sustainability and environmental stewardship.

**Sustainable Procurement:** A Green University may prioritize purchasing products and services that are environmentally sustainable, such as environmentally-friendly cleaning products, recycled paper, and locally sourced food.

**Sustainable Policies:** A Green University may prioritize implementing sustainable policies that align with its mission and values.









Green governance of the University refers to the policies, practices, and structures in place to ensure the institution operates environmentally and sustainably. Here are some key elements of green governance in universities:

**Environmental Policies:** A university should have a clear set of environmental guidelines that outline its commitment to sustainability and environmental stewardship.

These policies should address energy and water conservation, waste reduction and recycling, sustainable procurement, and sustainable transportation.

**Sustainability Committees:** A university should establish a sustainability committee or task force that is responsible for implementing and overseeing sustainability initiatives.

This committee should include representatives from various departments, faculty, and students to ensure sustainability is integrated throughout the institution.

**Green Buildings:** Universities should adopt green building practices to reduce the environmental impact of their facilities.

This includes designing and constructing energy-efficient buildings, using sustainable materials, and promoting healthy indoor environments.

**Sustainable Transportation:** Universities should promote sustainable transportation options such as biking, walking, carpooling, and public transportation.

This can be achieved through infrastructure improvements, incentives for sustainable commuting, and partnerships with local transportation providers.

**Curriculum Integration:** Universities should integrate sustainability into their curriculum to ensure that students are equipped with the knowledge and skills needed to address environmental challenges.

This can be achieved by offering sustainability-focused courses, interdisciplinary programs, and experiential learning opportunities.

**Community Engagement:** Universities should engage with their local communities to promote sustainability and environmental stewardship.

This can be achieved through partnerships with local organizations, sustainability events, and outreach programs.

Green governance of the University involves integrating sustainability into all aspects of the institution, from policies and practices to facilities and curriculum. This approach promotes environmental stewardship and sustainability and is a model for other higher education institutions.









## 1 2 3 4 5 6 7 8 9 10

At Smt. R M Prajapati Arts College (SRMPAC), governance is guided by state regulations and statutes, emphasizing a commitment to purpose and dedication to serving the interests of all stakeholders, including environmental conservation.

The Governing Body of SRMPAC fosters well-informed decision-making processes, ensures transparency in teaching-learning practices, and upholds accountability in utilizing human potential.

By adhering to these principles, SRMPAC endeavors to create a conducive environment for academic excellence while promoting sustainability and environmental responsibility.

Through strategic planning, resource allocation, and effective management practices, SRMPAC aims to integrate environmental considerations into its governance framework, thus contributing to a greener and more sustainable future for the institution and its community.

#### About Governing Body

Smt. R M Prajapati Arts College has a rich history rooted in community support and philanthropy. Initially, the institute's main building was constructed with contributions from 400 donors from the surrounding area, totaling 11,000/- Rs. The trust associated with the college continues to be a significant source of donations for various activities and construction projects.

The institute's management plays a crucial role as a patron facilitator, actively contributing to realizing the institution's Vision, Mission, and objectives. Serving as vigilant advisers, the management is deeply involved in selecting teaching faculty and support staff, as well as infrastructural development, renovation, and maintenance.

Their efforts aim to enhance the quality of education and facilities, fostering an environment conducive to academic excellence. Encouraging student participation in workshops for self-development is a key priority, aligning with the institution's commitment to holistic education.

The collective efforts of the President, Secretary, Principal, IQAC, and faculty members create a supportive academic atmosphere within the college. The IQAC takes proactive initiatives in planning, implementing, and refining quality improvement strategies, with policies discussed and modified in staff meetings based on recommendations and stakeholder feedback.







Committed to providing educational opportunities to students from all sections of society, the institute strives for excellence in teaching, learning, mentoring, placement, and scholarship programs. Innovative and career-oriented programs are designed to catalyze positive change in the target audience.

The college fosters competency, discipline, and holistic development among its students through academic and non-academic activities, including mentoring and motivational training sessions.











Sustainable university leadership incorporates sustainability into the institution's operations, policies, and culture.

**Developing a Sustainability Vision:** University leaders should establish a clear and compelling vision that outlines the institution's commitment to environmental, social, and economic sustainability.

The vision should be communicated to all stakeholders, including students, faculty, staff, and community members.

**Establishing Sustainability Goals:** University leaders should develop specific, measurable, and timebound goals aligning with the institution's vision. These goals should be integrated into the University's strategic plan and monitored regularly to track progress.

**Embeding Sustainability Into the Curriculum:** University leaders should work to integrate sustainability into the curriculum across all disciplines. This can be achieved by offering sustainability-focused courses, incorporating sustainability into existing courses, and promoting interdisciplinary sustainability programs.

**Promoting Sustainable Operations:** University leaders should implement sustainable practices in university operations, including energy and water conservation, waste reduction and recycling, sustainable transportation, and green building practices.

**Fostering a Culture of Sustainability:** University leaders should promote a culture of sustainability throughout the institution by engaging stakeholders and encouraging participation in sustainability initiatives. This can be achieved through employee and student sustainability training programs, sustainability awards, and sustainability outreach programs.

**Collaborating with Stakeholders:** University leaders should work collaboratively with stakeholders, including students, faculty, staff, alumni, and community members, to identify sustainability priorities and develop strategies to achieve sustainability goals. Sustainable leadership in universities requires a commitment to sustainability across all institution levels. By incorporating sustainability into the institution's operations, policies, and culture, university leaders can promote a more sustainable future and inspire the next generation of sustainability leaders.









## 1 2 3 4 5 6 7 8 9 10

Dr. Jayesh N. Barot, the Principal of Smt. R. M. Prajapati Arts College, Satlasana, is a cornerstone in fostering a culture of responsibility and sustainability within the institution. Through his leadership, Smt. R. M. Prajapati Arts College has emerged as a beacon of responsible education, nurturing numerous successful leaders who contribute positively to society.

As a lifelong learner, Dr. Barot embodies the ethos of responsible education, continuously striving to build a better nation by disseminating knowledge and values. His unwavering commitment to excellence and sustainability permeates every aspect of the College's operations, inspiring students and faculty to embrace environmental stewardship and social responsibility.

Under Dr. Barot's guidance, Smt. R. M. Prajapati Arts College has made significant strides towards becoming a model institution for sustainable practices, reinforcing its commitment to academic excellence and societal well-being.



**Dr. Jayesh N. Barot** Principal Smt. R. M. Prajapati Arts College, Satlasana

The ethos of decentralization and participative Management permeates the functioning of Smt. R M Prajapati Arts College across various levels. Effective leadership is evident in the institution's practices, fostering a collaborative environment conducive to quality education and sustainability.

The administration operates with a decentralized approach, wherein the Management, Principal, IQAC, and faculty synergize efforts to implement policies and plans. The Management, while ensuring the promotion and sustenance of quality, grants the Principal and Heads of Departments the autonomy to oversee academic affairs. Moreover, teaching and non-teaching staff are encouraged to actively engage in management committees such as the Campus Development Committee.







Several committees are formed at the institutional level to oversee and monitor the functioning of different departments, with the IQAC taking proactive measures through discussions and interactions, including department and faculty feedback sessions. Regular reviews of the teaching-learning process are conducted during quarterly meetings.

Faculty members contribute to decision-making through oral suggestions and participation in academic and administrative committees, including the Students Grievance Redressal Committee, Discipline Committee, Library Committee, Research Committee, and Campus Development Committee. These committees are strategically composed to include a balance of both experienced members and youthful perspectives.

The College meticulously prepares its institutional budget, with specialized committees such as the library committee involved in budget preparation. Furthermore, students are integral to decision-making processes and are represented in various committees, and their input holds significance. Additionally, suggestions from alums, parents, and employees are welcomed and duly considered by the institution.

Brief Profile of Principal

- 1. Name: Dr. Jayeshkumar Nathalal Barot
- 2. Date of Birth: 01/07/1965
- 3. Present Position: Principal
- 4. Office Address: Smt.R.M.Prajapati Arts college, Satlasana, Dist: Mehsana, (N.G.)-384330 Gujarat.
- 5. Mobile: 9426362329, Fax No.: 02761 259233
- 6. Email: artscollegesatlasana@gmail.com
- Residential Address: 53, Shrinathji Residency, Near K.M. Kothari High School, Satlasana, Dist. Mehsana - 384330
- 8. Mobile: 09426362329, Phone: 02761 259917
- 9. Email: drjayeshbarot@yahoo.co.in
- 10. Educational Qualification: M.A., B.Ed., Ph.D. (Sociology)
- 11. Date of Appointment as a Lecturer: 05/11/1990
- 12. Date of Appointment as a Principal: 16/06/2006
- 13. Special Subject: Sociology
- 14. Area of Specialization:
- 15. a) Tribal Society and Weaker Section Studies.
- 16. b) Rural Study
- 17. Experience:





- 18. a) U.G. Level: 28 Years
- 19. b) P.G. Level: 13 Years
- 20. c) M.Phil: 06 Years
- 21. d) Ph.D. Guide: 06 Years
- 22. Research Guidance:
  - Ph.D.: Number of Registered Students for Ph.D.: 03
  - Ph.D. Awarded Students: 10
  - M.Phil Awarded Students: 26
- 23. Research Work:
  - Minor Research Projects:
    - 1. Vanishing Tribe Culture Sponsored by U.G.C.
    - 2. Economic System of Tribes in North Gujarat Sponsored by U.G.C. 2013
- 24. Publications:
  - Number of Books Published: 12
  - Number of Research Articles Published: 31
- 25. Participation in Seminars, Symposiums, Conferences, and Workshops:
  - International: 09
  - National: 34
  - State: 37
  - Other: 28
  - Total: 108
  - Papers Presented: 56
  - Simple Attendance: 52
- 26. Lectures Delivered as Subject Expert in Other Institutions: 26
- 27. Orientation Course: 02
- 28. Refresher Course: 03
- 29. Training Programs: 02
- 30. Memberships in Professional Organizations, Academic Bodies, and Other Appointments:
  - Member, NAAC Peer Team, Bangalore
  - Ex. Dean, Arts Faculty Hem. N.G. Uni. Patan.
  - Executive Member of All India College Principal Association
  - President of North Gujarat University Principal Association
  - Member, Academic Council, Hem. N.G. Uni. Patan.
  - Member, Board of Sports, Hem. N.G. Uni. Patan
  - Recognized Ph.D. Guide in Sociology, Hem. N.G. Uni. Patan. Since 09/05/08







- Recognized Ph.D. Guide in Sociology, Dr. B.A. O.U. Ahmedabad since 2014
- Member, The Board of Studies in Sociology, Hem. N.G. Uni. Patan.
- Member of Extra-Mural Board, Hem. N.G. Uni. Patan.
- Member of College Development Board, Hem. N.G. Uni. Patan.
- Chairman, The Board of Studies in Sociology, Hem. N.G. Uni. Patan.
- Member of University Court, Hem. N.G. Uni. Patan.
- University P.G. Teacher since Last 14/06/99 continues.
- Member, Exam Committee, Hem. N.G. Uni. Patan.
- Member, Arts Faculty, Hem. N.G. Uni. Patan.
- Program Officer, N.S.S. Arts College Shamlaji for 10 years
- Asst. Co. Ordinator, Dr. Babasaheb Ambedkar Open University Center, Arts College Shamlaji
- Co-ordinator, Dr. Babasaheb Ambedkar Open University Center, Arts College Satlasana 01/02/2007.
- Co-ordinator Dept. of M.Phil Sociology, Hem. N.G. Uni. Patan
- Prof. In charge, P.G. center, Arts College Shamlaji for three years.
- Member of Gujarat Sociological Society
- Member of Gujarat Principal Association
- Member of North Gujarat University Principal Association
- Member of Advisory Committee Research journal of HESMA
- Zonal Coordinator of KCG
- Paper Setter-cum-examiner in Sociology N.G. Uni. Patan. since 1992 F.Y.B.A. to M.Phil, Ph.D.
- Paper Setter-cum-examiner in Sociology Gujarat Vidyapith, Ahmedabad, Jodhpur University, S.P. University.
- Ex-Treasurer, Gujarat Sociological Society.
- Member of Editorial Board











3. Sustainability Commitment

The sustainability commitment of a university refers to its dedication to integrating sustainability into all aspects of its operations, policies, and culture. A university's sustainability commitment involves a comprehensive approach to sustainability that incorporates environmental, social, and economic factors i.e.

**Environmental Sustainability:** A university's commitment to ecological sustainability involves reducing its environmental impact through sustainable practices in energy and water conservation, waste reduction and recycling, sustainable transportation, and green building practices.

**Social Sustainability:** A university's commitment to social sustainability involves promoting social justice, equity, and inclusivity within the institution and in the broader community.

This can be achieved through diversity and inclusion initiatives, community engagement programs, and the promotion of social responsibility and ethical behavior.

**Economic Sustainability:** A university's commitment to economic sustainability involves balancing its financial needs with its sustainability goals.

This can be achieved through responsible financial management, sustainable procurement practices, and promotion of entrepreneurship and innovation.

**Curriculum and Research:** A university's commitment to sustainability involves incorporating sustainability into the curriculum across all disciplines and promoting sustainability research. This can be achieved by offering sustainability-focused courses, incorporating sustainability into existing systems, and promoting interdisciplinary sustainability programs.

**Stakeholder Engagement:** A university's commitment to sustainability involves engaging stakeholders, including students, faculty, staff, alumni, and community members, in sustainability initiatives.

This can be achieved through employee and student sustainability training programs, sustainability awards, and sustainability outreach programs.

Overall, a university's sustainability commitment involves a comprehensive approach that integrates environmental, social, and economic factors into all aspects of the institution's operations, policies, and culture.

By promoting sustainability within the institution and in the broader community, universities can inspire the next generation of sustainability leaders and contribute to a more sustainable future.









Sustainability Commitment

# 1 2 3 4 5 6 7 8 9 10

Smt. R M Prajapati Arts College, it is emphasized that SRMPAC staunchly upholds the principle of "accountability to the future," understanding its distinctive role and significant responsibility in addressing the pressing issues of climate change and sustainability.

The vision of SRMPAC is deeply ingrained in its collective commitment to establishing and maintaining a campus that not only enhances the welfare of every individual within its community but also plays a pivotal role in fostering the planet's overall health.

- Adoption of solar power systems on campus.
- Maintenance of two lush green gardens.
- Plantation of 450 trees within the campus.
- Acquisition of ISO 9001:2015 certification.
- Implementation of eco-friendly practices to ensure a clean and sustainable campus environment.
- Installation of water harvesting and power-saving systems.
- A 40 KV generator is available for emergency electricity backup.
- Provision of facilities like a girls' room with a sanitary pad vending machine.
- Active engagement in anti-ragging measures and grievance redressal mechanisms.
- Establishment of an excellent student support system, emphasizing holistic development.











#### 4. Innovative Practices

Innovation practices in universities refer to the strategies and approaches universities use to promote and support innovation and entrepreneurship. Here are some examples of innovative practices in universities:

**Incubators and Accelerators:** Many universities have established incubators and accelerators to provide support and resources to startups and entrepreneurs.

These programs often offer mentoring, funding, networking opportunities, and specialized equipment and facilities access.

**Entrepreneurship Courses and Programs:** Universities can offer classes and programs that teach students the skills and knowledge needed to launch and run a successful startup.

These programs may cover business planning, marketing, and finance topics.

**Research and Development Partnerships:** Universities can partner with businesses and organizations to conduct research and development, leading to new products, services, and technologies. These partnerships can benefit both the University and the partner, creating opportunities for innovation and commercialization.

**Intellectual Property and Commercialization Support:** Universities can provide support and resources for protecting and commercializing intellectual property. This can include patent filing assistance, licensing services, and startup incubation and acceleration.

**Collaborative Innovation Spaces:** Universities can establish collaborative spaces that bring together students, faculty, researchers, and industry partners to work on innovative projects.

These spaces can facilitate cross-disciplinary collaboration and knowledge sharing.

**Innovation Competitions and Awards:** Universities can organize innovation competitions and prizes to recognize and incentivize creative thinking and problem-solving.

These competitions encourage students to develop new solutions to real-world problems and promote a culture of innovation on campus.

University innovation practices involve creating an environment that fosters creativity, encourages risk-taking, and supports entrepreneurship. By promoting innovation on campus, universities can help drive economic growth and development while providing students with the skills and experience needed to succeed in a rapidly changing world.









Innovative Practices

## 1 2 3 4 5 6 7 8 9 1

Smt. R M Prajapati Arts College, the significance of innovation in driving the Post Graduate & Research Programs is emphasized.

Creativity and innovation are inherently linked, representing the application and implementation of novel ideas to add value and introduce what is new. At SRMPAC, innovation drives our Post Graduate & Research Programs, shaping the educational landscape to meet evolving needs and challenges.

Innovative approaches to learning opportunities are cultivated under the guidance of Deans and HoDs across diverse academic departments. These leaders collaborate with exceptional researchers, innovators, and entrepreneurs to infuse creativity into the educational experience, fostering a dynamic environment where exploration and discovery thrive.



Cumulative Score





Building design and landscaping are critical components of a Green University, as they are vital in promoting sustainability and environmental stewardship. Here are some essential considerations for building design and landscaping in a Green University:

**Sustainable Building Design:** A Green University should prioritize sustainable building design incorporating energy-efficient systems and materials, green roofs and walls, natural lighting and ventilation, and water conservation features.

**Renewable Energy Sources:** A Green University should consider incorporating renewable energy sources into its buildings, such as solar panels, wind turbines, or geothermal systems.

**Sustainable Landscaping:** A Green University should prioritize sustainable landscaping practices that promote biodiversity, soil health, and water conservation.

**Sustainable Water Management:** A Green University should consider implementing sustainable water management practices, such as rainwater harvesting, grey water recycling, and low-flow fixtures. These practices can help conserve water and reduce the University's impact on the local water supply.

**Green Transportation:** A Green University should prioritize sustainable transportation options, such as bike paths, pedestrian walkways, and electric vehicle charging stations.

**Sustainable Materials:** A Green University should prioritize using sustainable materials in construction and landscaping, such as reclaimed wood, recycled materials, and sustainably sourced materials.

The University can reduce its environmental impact, promote sustainable practices, and inspire the next generation of environmentally-conscious leaders.









#### 1. Local Building Regulations

Building laws and regulations in India vary from state to state and are subject to changes over time. These regulations are typically enforced at the local or state level, and they cover a wide range of aspects related to construction, including safety, zoning, environmental concerns, and more. For universities or educational institutions in India, here are some key considerations and regulations to keep in mind:

**Local Building Codes:** Universities in India must adhere to local building codes and regulations. These codes specify requirements for structural integrity, fire safety, electrical systems, plumbing, and other aspects of construction. Local municipal bodies or development authorities often enforce these codes.

**Zoning Laws**: Zoning regulations determine how land in a particular area can be used. Educational institutions, including universities, are allowed in specific zones. It's important for universities to ensure that their campus location complies with local zoning laws.

**Environmental Regulations:** Building and construction activities can have environmental impacts. Universities need to be aware of and comply with environmental regulations related to waste disposal, energy efficiency, and water conservation.

**Fire Safety Regulations:** Fire safety is a critical aspect of building construction. Universities must adhere to fire safety regulations, which may include the installation of fire alarms, sprinkler systems, and fire exits.

**Accessibility and Disability Laws:** It's important for universities to ensure that their buildings are accessible to individuals with disabilities. Compliance with accessibility standards, such as the Rights of Persons with Disabilities Act, is crucial.

**Heritage and Conservation Laws:** If a university is located in an area with historical or cultural significance, there are heritage conservation laws that restrict modifications to existing buildings or the construction of new structures.

**Occupancy Certificates:** Before a university building can be occupied, it typically needs to obtain an occupancy certificate from the local municipal authority. This certificate confirms that the building meets all necessary safety and regulatory requirements.

Land Use Planning: Universities need to submit a master plan for their campus, outlining the land use and development plans. This plan may need approval from local planning authorities.









#### Local Building Regulations

**Local Authority Approvals:** Before starting construction, universities need to obtain approvals and permits from local development authorities or municipal corporations. These approvals may involve scrutiny of building plans and compliance with local regulations.

**Energy Efficiency Standards:** Building regulations in India increasingly emphasize energy efficiency and sustainability. Universities need to incorporate energy-efficient features into their buildings and follow local green building standards like LEED (Leadership in Energy and Environmental Design).

To ensure compliance with local building laws and regulations, universities need to work closely with local authorities, hire qualified architects and engineers, and consult legal experts as needed.

It's also important to stay updated on any changes in building codes and regulations at the local or state level, as these can evolve over time.











Local Building Regulations

## 1 2 3 4 5 6 7 8 9 10

While green building laws and codes in our country are typically voluntary, the commitment to sustainability is integral to our institution. A green building, as defined, prioritizes water conservation, energy efficiency, resource optimization, waste reduction, and occupant well-being.

The infrastructure of SRMPAC exemplifies this commitment, ensuring that our built-up learning spaces align with all local building regulations. Spanning across 5 acres of land, our college encompasses a built-up area of 2741.58 square meters, designed with sustainability and environmental consciousness.











Topsoil erosion can occur due to wind, rain, or human activities like excavation and construction. When topsoil erodes, it can cause soil degradation and reduce the soil's ability to support plant growth. Therefore, preserving topsoil helps to prevent erosion and maintain soil health.

Soil conservation is the prevention of loss of the topmost layer of the earth from erosion or the prevention of reduced fertility caused by over usage, acidification, salinization, or other chemical soil contamination.

Topsoil has the highest concentration of organic matter and nutrients. It is also the most fertile layer of soil and is crucial for plant growth. Therefore, preserving topsoil helps to conserve the soil's fertility and ensures that it can support plant growth in the future.

Topsoil acts as a sponge, absorbing water and allowing it to infiltrate the soil. This helps to reduce runoff and erosion, and it also helps to recharge groundwater supplies. In addition, preserving topsoil helps to maintain soil moisture levels and ensure that water is available for plant growth.

The topsoil layer contains diverse microorganisms, including bacteria, fungi, and other soil organisms. These microorganisms play an essential role in nutrient cycling and soil health. Preserving topsoil helps to maintain soil biodiversity, which is necessary for ecosystem health.

Preserving topsoil is an essential aspect of sustainable landscaping. It helps to reduce the need for chemical fertilizers and pesticides, which can harm the environment and human health. The University can create a more sustainable and environmentally friendly landscape by preserving topsoil.









**Top-Soil Preservation** 

## 1 2 3 4 5 6 7 8 9 10

Recognizing topsoil as the essential layer supporting vegetation, we prioritize soil conservation to prevent erosion and maintain fertility. Our proactive approach includes regular aeration to facilitate nutrient absorption by plant roots and the subsequent filling of aeration holes.

Additionally, we promote indigenous gardening methods, construct wind barriers, implement mulching techniques, and strategically place stepping stones for walkers to minimize soil compaction.

These concerted efforts underscore our commitment to preserving the integrity of topsoil across our campus, ensuring sustainable growth and environmental resilience for future generations.











**3. Eco-friendly Commuting Practices** 

Eco-friendly commuting practices in universities involve promoting sustainable transportation options that reduce the environmental impact of commuting to and from campus, including...

**Public Transportation:** University should encourage students and employees to use public transport by providing information on local transit options, offering transit subsidies, and partnering with local transit agencies to provide discounted fares.

**Active Transportation:** University should promote active transportation options such as walking, biking, and skateboarding by providing bike racks, shower facilities, and safe pedestrian and bike routes.

**Carpooling and Vanpooling:** University should encourage carpooling and vanpooling by providing carpool matching services, preferred parking for carpool vehicles, and incentives such as discounted parking fees.

**Electric and Hybrid Vehicles:** Universities can promote using electric and hybrid cars by providing charging stations and offering incentives such as preferred parking or discounted parking fees.

**Telecommuting and Flexible Work Arrangements:** Universities can offer telecommuting and flexible work arrangements to reduce the need for employees to commute to campus.

**Green Transportation Events and Campaigns:** Universities can organize events and campaigns to promote eco-friendly commuting options, such as bike-to-work days, car-free days, and sustainable transportation fairs.

Universities' eco-friendly commuting practices involve sustainable transportation options that reduce the environmental impact of commuting to and from campus.

By promoting sustainable transportation, universities can help reduce traffic congestion, improve air quality, and contribute to a more sustainable future.









**Eco-friendly Commuting Practices** 

## 1 2 3 4 5 6 7 8 9 10

Smt. R M Prajapati Arts College, we advocate for environmentally conscious transportation practices among our students and faculty to reduce the environmental footprint associated with automobile use.

Furthermore, we provide residential accommodations for our professors and non-teaching staff to minimize environmental impact. Through these initiatives, we aim to foster a culture of sustainability and contribute to a greener future for our campus and beyond.

	Walking	Bicycle	Motorcycle	Car	College Bus	Public Transport	Total
Students	498	0	40	06	-	2415	2959
Teachers	03	-	-	16	-	-	19
Non-Teaching Staff	-	-	05	03	-	-	08









4. Sustainable Parking Facility

Sustainable parking facilities in universities involve designing and operating parking structures to minimize their environmental impact and maximize their sustainability benefits. Here are some examples of sustainable parking facilities in universities:

**Green Roofs and Walls:** Universities can incorporate green ceilings and walls into their parking structures, which can help reduce the heat island effect, improve air quality, and provide habitat for wildlife.

**Electric Vehicle Charging Stations:** Universities can install electric vehicle charging stations in their parking structures to encourage the use of electric vehicles and reduce greenhouse gas emissions.

Bike storage and amenities: Universities can provide bike storage and amenities such as showers, lockers, and repair stations in their parking structures to encourage active transportation and reduce the use of cars.

**Sustainable Construction Materials:** Universities can use sustainable construction materials such as recycled content concrete, low VOC paints and coatings, and locally-sourced materials to reduce the environmental impact of their parking structures.

**Solar Panels:** Universities can install solar panels on the roofs of their parking structures to generate renewable energy and reduce their carbon footprint.

**Stormwater Management:** Universities can incorporate stormwater control features such as rain gardens, bioswales, and permeable paving into their parking structures to reduce stormwater runoff and improve water quality.

Sustainable parking facilities in universities involve designing and operating parking structures to minimize their environmental impact and maximize their sustainability benefits.

By incorporating sustainable features into their parking structures, universities can reduce their carbon footprint, promote active transportation, and contribute to a more sustainable future.









4. Sustainable Parking Facility

# 1 2 3 4 5 6 7 8 9 1

It's noteworthy that Smt. R M Prajapati Arts College (SRMPAC) has implemented sustainable shaded parking spaces. These spaces feature environmentally friendly paving materials, energy-efficient or natural lighting systems, integration of renewable energy sources, and enhanced pedestrian walkways.

This initiative aligns with our commitment to sustainability and promotes eco-friendly practices within our campus infrastructure.

#### Parking capacity in the campus

Buses	Cars	Motorcycles	Bicycles
06	25	150	500











5. Greenery and Biodiversity on Campus

Greenery in universities involves incorporating plants and other natural elements into the campus environment to create a more sustainable and livable space. Biodiversity in universities consists in promoting and preserving various plant and animal species within the campus environment.

**Green Roofs and Walls:** Universities can install green ceilings and walls on their buildings to provide insulation, reduce stormwater runoff, improve air quality, and create habitats for wildlife.

**Trees and Shrubs:** Universities can plant trees and shrubs throughout their campuses to provide shade, improve air quality, and reduce the heat island effect.

**Rain Gardens and Bioswales:** Universities can incorporate rain gardens and bioswales into their landscapes to manage stormwater runoff and improve water quality.

**Urban Aagriculture:** Universities can establish urban agriculture programs that provide fresh produce for campus dining services and engage students in sustainable food systems.

**Native Plant Gardens:** Universities can establish gardens that feature native plant species, which support local ecosystems and promote biodiversity.

**Wildlife Habitat Preservation:** Universities can preserve natural areas on campus that serve as habitats for local wildlife, such as wetlands, forests, and meadows...

**Campus Sustainability Plans:** Universities can include biodiversity initiatives in their campus sustainability plans, setting targets for biodiversity preservation and establishing monitoring programs to track progress.

**Education and Awareness:** Universities can educate their students, faculty, and staff about the importance of biodiversity and promote awareness of local ecosystems and wildlife.

Greenery in universities involves incorporating natural elements into the campus environment to create a more sustainable, livable, and biodiverse space. By promoting vegetation on campus, universities can contribute to a healthier and more sustainable future for their communities and the planet. In contrast, by supporting biodiversity on campus, universities can contribute to a healthier and more sustainable future for their communities and the more sustainable future for their communities and the earth.









**Greenery and Biodiversity on Campus** 

# 1 2 3 4 5 6 7 8 9 10

Ensuring a diverse array of plant life is essential for fostering stable and vibrant ecosystems, as it offers vital resources such as food, shelter, and habitat components for wildlife. Moreover, interacting with greenery has been shown to enhance human well-being by reducing stress, improving emotional states, and enhancing cognitive function.

At Smt. R M Prajapati Arts College (SRMPAC), we have prioritized incorporating greenery throughout our campus. This includes establishing community gardens, parks, meadows, green roofs, playing fields, and wetlands. These green spaces contribute to our community's wellbeing and serve as valuable educational resources, enriching the learning experience and promoting environmental awareness among students and staff.

Buses	Cars	Bicycles
01	Building foot print	5 acres
02	Playground area	2 acres
03	Vegetated space	-
	A. Turf area	4000 sq mtr
	B. Area with native species	-
	C. Area with drought tolerant species	-
	D. Other Species area	4000 sq mtr
04	Non-roof impervious area	1 acre
05	Water body	1000 sq mtr

## Total Area of the Campus









#### Smt. R. M. Prajapati Arts College Satlasana, Mehsana

1.	Gundi	4
2.	Nilgiri	15
3.	Gulmahor	24
4.	Piplo	6
5.	Kesudo	6
6.	Kadiyo har	6
7.	Jasus	8
8.	Saru	17
9.	Limbda	82
10.	Borsalli	27
11.	Kanji	14
12.	Badam	5
13.	Chikudi	3
14.	Chandan	35
15.	Sag	8
16.	Limbudi	3
17.	Kadam	2
18.	Ashopalav	35
19.	Bili	6
20.	Saptpadi	5
21.	Botam Plan	22
22.	Konokarpas	25
23.	Boganvel	16
24.	Karan	9
25.	Other	75
	Total	458











#### 6. Minimise Heat Exposure to Sun: Non-Roof

Minimizing heat exposure to the Sun for non-roof areas in universities can be achieved through a variety of strategies, including:

**Planting Trees and Greenery:** Trees and other vegetation provide natural shade and help to cool the surrounding environment through evapotranspiration.

**Installing Shade Structures:** Installing shade structures, such as pergolas or shade sails, can provide a shaded area for students and staff to stay calm and protect them from the Sun's heat.

**Creating Green walls and Green Roofs:** Green walls provide additional insulation and reduce the heat absorbed by buildings and surrounding areas.

**Using Cool Pavement:** Using light-colored or reflective pavement can reduce heat absorption and reflect sunlight into the atmosphere, helping to cool the surrounding area.

**Incorporating Water Features:** Water features, such as fountains or misting systems, can help cool the surrounding area through evaporative cooling.

**Creating Windbreaks:** Installing windbreaks, such as walls or hedges, can protect from the wind and reduce wind chill, making the area feel more relaxed.

**Providing Proper Ventilation:** Ensuring adequate ventilation in the area can help circulate air and prevent hot air buildup.

Minimizing heat exposure to the Sun for non-roof areas in universities involves incorporating shading, Greenery, cool pavement, water features, windbreaks, and proper ventilation into the design and operation of the campus. By implementing these strategies, universities can create a comfortable and safe outdoor environment for students and staff, even on hot days, while promoting sustainability and reducing energy consumption.








Minimise Heat Exposure to Sun: Non-Roof

# 1 2 3 4 5 6 7 8 9 1

Within the sprawling confines of the SRMPAC Campus, a lush array of 450 trees and plants thrives across 5 acres. Strategically distributed, these green spaces mitigate the exposure of impervious surfaces to the sun, thereby minimizing the impact on the microclimate within the campus environment.

Α.	College campus area	05.02 acres
В.	No. of existing trees / saplings planted	450
C.	Total non-roof area, area covered with trees (foliage) or open grid pavers	2 acres











7. Minimise Heat Exposure to Sun: Roof

Minimizing heat exposure to the Sun on roofs in universities can be achieved through a combination of strategies, including:

**Cool Roofs:** Using cool roofs, designed to reflect more sunlight and absorb less heat, can help reduce the amount of heat absorbed by the shelter and transferred into the building.

**Green Roofs:** Installing a green roof, which involves planting vegetation on the surface, can provide natural insulation and reduce the heat the top absorbs. This can also help to improve biodiversity on the campus.

**Solar Shading Devices:** Installing solar shading devices, such as awnings or screens, can help block direct sunlight and reduce the amount of heat the roof absorbs. This can also provide shaded areas for students and staff to study or relax.

**Insulation:** Properly insulating the roof can help to prevent heat from penetrating the building and reduce the need for air conditioning.

**Ventilation:** Proper ventilation of the roof space can help to circulate air and reduce the buildup of hot air. This can be achieved through the installation of vents or fans.

**Maintenance:** Regular roof maintenance, cleaning and repairing any damage, can help ensure the roof functions efficiently and reduces heat absorption.

By incorporating these strategies into the design and operation of university buildings, it is possible to create a more comfortable and sustainable campus environment.

This can also reduce energy costs and improve the University's overall sustainability. Additionally, providing shaded and cool areas on roofs can encourage outdoor learning and activities, positively impacting student well-being and academic performance.









Minimise Heat Exposure to Sun: Roof

# 1 2 3 4 5 6 7 8 9 10

At SRMPAC, our approach to tree planting is strategic and multifaceted. Trees are strategically positioned to shade the roofs during the scorching summer months. As the leaves shed during winter, sunlight can penetrate, creating a desirable solar heat gain effect.

Additionally, our campus features extensive solar panel coverage on most roof areas. For the remaining sections, tiles and paint have been employed to reduce the concrete surface exposed to direct sunlight, thereby mitigating the impact on the campus microclimate.











Universal design is an approach to design that aims to create products, buildings, and environments accessible and usable by everyone, regardless of their age, abilities, or disabilities. For example, in the context of a university, universal design should be applied to create an inclusive learning environment that benefits all students, including those with disabilities.

Universal design can be incorporated into the design and operation of a university through...

**Building Design:** Buildings should be designed to be accessible and usable by people with disabilities. This includes ramps, wide doorways, elevators, and accessible restrooms.

**Classroom Design:** Classrooms should be accessible and usable by students with disabilities. This includes features such as adjustable desks, chairs, and lighting and ensuring classroom materials are available in accessible formats.

**Information Technology:** Information technology should be designed to be accessible to all users. This includes closed captioning on videos, text-to-speech options, and compatibility with assistive technology devices.

**Pedagogy:** Teaching methods should be designed to be inclusive of all students. This includes using various teaching methods, such as visual, auditory, and kinesthetic, and providing clear instructions and expectations.

**Campus Amenities:** Campus amenities, such as dining facilities and recreational areas, should be designed to be accessible and usable by people with disabilities.

By incorporating universal design principles into the design and operation of a university, it is possible to create an inclusive learning environment that benefits all students. This can help to improve the academic experience and outcomes for students with disabilities, as well as promote a more diverse and inclusive campus community.









Universal Design

# 1 2 3 4 5 6 7 8 9 10

At SRMPAC, we embrace Universal Design for Learning (UDL), an inclusive approach to education that ensures all students have equal opportunities for success. Our goal with UDL is to eliminate barriers to learning by employing diverse teaching methods that cater to individual strengths and needs.

To support this approach, our learning spaces are thoughtfully designed to accommodate differently-abled students. We provide designated restrooms for their convenience and ensure hindrance-free movement throughout common areas, fostering an environment where every student can thrive.



Cumulative Score

64/80



Water management is a critical component of sustainability in a Green University. Some essential water management practices that a Green University should consider implementing:

**Rainwater Harvesting:** A Green University should have rainwater harvesting systems, such as rain barrels or cisterns, to collect rainwater from rooftops and other surfaces.

**Greywater Recycling:** A Green University should consider recycling greywater, wastewater from sinks, showers, and washing machines, for landscape irrigation.

**Low-Flow Fixtures:** A Green University should install low-flow fixtures, such as toilets, showerheads, and faucets, to reduce water consumption.

**Drought-Tolerant Landscaping:** A Green University should prioritize drought-tolerant landscaping, such as native plants, that require less water than traditional turf grass.

**Water Audits:** A Green University should conduct water audits to identify high-water use areas and implement measures to reduce water consumption.

**Leak Detection and Repair:** A Green University should regularly check for leaks in plumbing fixtures, irrigation systems, and other water systems.

**Educational Programs:** A Green University should also provide educational programs on water conservation for students, faculty, and staff. These programs can increase awareness of water conservation issues and promote sustainable water use behaviors.

Water management practices in a Green University should prioritize water conservation, reuse, and efficiency. By implementing these practices, the University can reduce its water consumption, conserve water resources, and promote sustainable water use.









1. Rainwater Harvesting: Roof & Non-Roof

Rainwater harvesting is collecting, storing, and using rainwater for various purposes. It is an effective and sustainable method of conserving water, especially in regions where water is scarce or where water supply is unreliable.

Rainwater harvesting can be done through the roof and non-roof methods, both of which can be implemented in a university setting. Roof-based rainwater harvesting involves collecting rainwater that falls on rooftops and storing it for later use. This method is typically used in buildings with large roof areas and is relatively easy to implement.

The rainwater collected from the roofs can be used for a variety of purposes, including irrigation, flushing toilets, and washing clothes.

Non-roof rainwater harvesting, on the other hand, involves collecting rainwater from other surfaces such as pavements, lawns, and gardens. This method is typically used in open spaces such as parks, playgrounds, and other public areas.

Non-roof rainwater harvesting can be done using trenches, swales, and other surface-level structures that capture and store rainwater.

In a university setting, both roof-based and non-roof rainwater harvesting methods can be implemented to conserve water and reduce the demand for municipal water supply.

This can be done by installing rainwater collection systems on rooftops and in open spaces such as lawns, gardens, and parks. The collected rainwater can be used for irrigation, landscaping, and other non-potable uses.

Additionally, universities can also implement rainwater harvesting systems for potable water use. This can be done by treating the collected rainwater to make it safe for drinking and cooking. This approach requires a more sophisticated and expensive system than non-potable uses, but it can be a viable option in areas with limited water supply.

Rainwater harvesting is a sustainable and effective way to conserve water and reduce the demand for municipal water supply. In a university setting, implementing rainwater harvesting systems can reduce water usage and promote sustainable practices among students, staff, and faculty.







1. Rainwater Harvesting: Roof & Non-Roof

# 1 2 3 4 5 6 7 8 9 10

The Earth's surface is predominantly covered by water, with 71% of its area submerged. However, only 3% of this water is accessible as potable water. In today's world, water conservation stands as a fundamental principle of sustainable universities.

At SRMPAC, we have implemented a meticulously planned rainwater harvesting system on our campus. This system serves to bolster the groundwater table while diminishing the consumption of potable water.

By capturing the maximum volume of rainwater runoff from roof and non-roof areas, SRMPAC contributes to this vital resource's preservation and responsible use.











Water-efficient plumbing fixtures are designed to conserve water while providing the same functionality as traditional fixtures. In addition, these fixtures use less water than conventional fixtures, which can help reduce water consumption and lower water bills. For example, the university can use the following to achieve water-efficient plumbing fixtures.

**Low-flow Toilets:** Low-flush toilets work with a minimal amount of water. The exact amount of water varies between less than a liter - 8 liters per flush. In addition, these toilets can operate by gravity or vacuum. This can save significant water, as conventional toilets use up to 15 liters per flush.

**Water-Saving Showerheads:** Water-saving showerheads can reduce water consumption by up to 50% compared to traditional showerheads while still providing a satisfying shower experience. These fixtures typically have a flow rate of 6 liters per minute or less.

**Faucet Aerators:** Faucet aerators mix air with water to reduce water use while still maintaining water pressure. These can be installed on any faucet, saving up to 50% of water usage.

**High-Efficiency Washing Machines:** High-efficiency washing machines use less water than traditional washing machines and are designed to be more efficient in water use. They can save up to 40% of water usage compared to traditional washing machines.

**Dual-Flush Toilets:** Dual-flush toilets have two flush options: solid waste and liquid waste. This reduces water usage for liquid waste, saving significant water consumption.

By using water-efficient plumbing fixtures, universities can reduce water usage and promote sustainable practices among students, staff, and faculty. Ensuring these fixtures are installed correctly and properly maintained is essential to ensure maximum efficiency and water conservation.









Water Efficient Plumbing Fixtures

# 1 2 3 4 5 6 7 8 9 10

SRMPAC has taken proactive steps to promote responsible water usage across its academic and hostel premises. Measures have been implemented to curtail potable water consumption, particularly in areas such as drinking water points, face washing points, urinals, and toilets.

These efforts include optimizing water flow rates in daily usage scenarios.

Many of our plumbing fixtures have been upgraded to low-flow alternatives without compromising performance. These fixtures adhere to water efficiency standards established for Green College.

Importantly, all plumbing fixtures are functioning correctly, with no leaks or drips, ensuring efficient water utilization throughout the campus.











Sustainable turf design is an approach to landscaping and management that focuses on reducing the environmental impact of turf areas while maintaining their functionality and aesthetics. University can use the following principles of sustainable turf design:

**Reduce the Size of Turf Areas:** One of the most effective ways to reduce the environmental impact of turf areas is to reduce their size. This can be achieved by converting some areas to natural landscapes, such as meadows or native plant gardens.

**Choose Drought-Tolerant Grass Varieties:** Drought-tolerant grass varieties require less water and maintenance than traditional grass varieties. This can significantly reduce water usage and maintenance costs.

**Use Organic Fertilizers and Pest Control Methods:** Organic fertilizers and pest control methods are less environmentally harmful than traditional chemical methods. They can also promote soil health and reduce water pollution.

**Use Recycled Water for Irrigation:** Recycled water, such as greywater or rainwater, can be used for irrigation instead of potable water. This can save significant amounts of water and reduce the demand for municipal water supply.

**Implement low-Impact Maintenance Practices:** Low-impact maintenance practices, such as using manual tools instead of electric ones,

**Consider Alternative Turf Surfaces:** Alternative turf surfaces, such as synthetic turf or gravel, can be used in high-traffic areas where natural grass may not be feasible. In addition, these surfaces require less water and maintenance than natural grass.

By implementing sustainable turf design practices, universities can reduce environmental impact while maintaining functional and aesthetically pleasing outdoor spaces.

When designing and maintaining turf areas, it is essential to consider the local climate, soil conditions, and water availability.









3. Sustainable Turf Design

# ) 2 3 4 5 6 7 8 9 1)

The turf at SRMPAC plays a significant role in our overall landscape, meeting both functional and aesthetic requirements for our teaching and learning community. It serves as a vital component while also minimizing the impact on natural resources and the environment at large.

Within the turf area of SRMPAC, we have incorporated numerous drought-tolerant species across the total vegetated area. This intentional selection helps to reduce water consumption while maintaining the beauty and functionality of our landscape.











4. Water Efficient Landscaping

Water-efficient landscaping, also known as xeriscaping or drought-tolerant landscaping, is an approach to landscaping that focuses on reducing water consumption while still maintaining functional and aesthetically pleasing outdoor spaces. University can use these critical principles of water-efficient landscaping:

**Choose Drought-Tolerant Plants:** Drought-tolerant plants require less water than traditional plants and can still provide a lush and attractive landscape. Native plants are often a good choice as they are well-adapted to the local climate.

**Group Plants by Water Needs:** Grouping plants with similar water needs together can help reduce water usage by avoiding overwatering or underwatering. This can also help ensure that water is used efficiently.

**Use Efficient Irrigation Systems:** Drip irrigation systems and smart controllers can help reduce water usage by delivering water directly to the plants and adjusting water output based on weather conditions.

**Mulch Around Plants:** Mulch helps retain moisture in the soil, reducing the need for watering. It also suppresses weeds, which can compete with plants for water.

**Use Permeable Surfaces:** Permeable surfaces, such as gravel or permeable pavers, allow rainwater to soak into the soil instead of running off, reducing the need for irrigation.

**Consider Hardscaping:** Hardscaping, such as patios or walkways, can reduce the amount of lawn or plant beds, reducing water usage and maintenance needs.

By implementing water-efficient landscaping practices, universities can reduce water usage, save money on water bills and maintenance costs, and promote sustainable practices among students, staff, and faculty. Therefore, choosing the right plants and irrigation systems based on local climate and soil conditions is essential, and adequately maintaining the landscape ensures maximum efficiency and water conservation.









4. Water Efficient Landscaping

# ) 2 3 4 5 6 7 8 9 10

Many Colleges in India primarily utilize water for landscape and lawn irrigation, often leading to significant water usage. However, at SRMPAC, we prioritize water-efficient landscaping practices that not only maintain functionality and attractiveness but also align with the natural surroundings of our campus.

Our entire landscaping approach at SRMPAC focuses on water efficiency, achieved through responsible irrigation practices and mulching. Within the vegetated areas of our campus, we have carefully selected drought-tolerant plant species, including trees, shrubs, herbs, climbers, and grass. These species have been chosen specifically for their ability to thrive with minimal water requirements compared to other varieties.











5. Water Efficient Irrigation System

Water-efficient irrigation systems are designed to deliver the right amount of water to plants while minimizing water waste. Therefore, the university can apply a few fundamental principles of water-efficient irrigation systems:

**Choose The Right System:** There are several types of irrigation systems, including drip irrigation, sprinklers, and soaker hoses. Choosing the right system depends on plant type, soil type, and local climate.

**Use an Intelligent Controller:** A smart controller can adjust the amount and frequency of water delivery based on weather conditions and plant needs. This can help reduce water waste and improve plant health.

**Use Water-Saving Nozzles and Heads:** Water-saving nozzles and heads can reduce water usage by up to 30% compared to traditional ones. These are available for both drip and sprinkler systems.

**Check for leaks and Maintenance Issues:** Regular maintenance can help ensure that the system is working efficiently and that there are no leaks or other issues that can waste water.

**Use Rainwater Harvesting:** Harvesting rainwater can provide a free source of water for irrigation, reducing the demand for potable water.

**Install a Soil Moisture Sensor:** Soil moisture sensors can help ensure that plants are receiving the right amount of water by measuring the moisture content of the soil. This can prevent overwatering or underwatering.

By implementing water-efficient irrigation systems, universities can reduce water usage and save money on water bills. Therefore, choosing the right design and components based on local climate and plant needs is essential, and adequately maintaining the system ensures maximum efficiency and water conservation.









Water Efficient Irrigation System

# 1 2 3 4 5 6 7 8 9 10

At SRMPAC, we employ sprinkle irrigation as an efficient method to maintain the health and beauty of our landscape. Unlike traditional methods that saturate the entire landscape, sprinkle irrigation delivers water directly to the plant root zone.

This targeted approach ensures that water is applied precisely when plants require it most and in the appropriate amounts for optimal growth.











Wastewater treatment is treating and cleaning sewage and other wastewater before it is released into the environment. Here are some fundamental principles of wastewater treatment for Universities:

**Primary Treatment:** Primary treatment involves the removal of large particles and solids from wastewater through physical processes such as screening and settling.

**Secondary Treatment:** Secondary treatment involves using biological processes to remove organic matter and nutrients from wastewater. This is typically done through activated sludge or other natural treatment systems.

**Tertiary Treatment:** Tertiary treatment involves the removal of remaining contaminants from the wastewater using processes such as filtration, disinfection, or chemical treatment. This is often necessary to meet regulatory standards for wastewater discharge.

**Reuse of Treated Water:** Treated wastewater can be reused for irrigation, flushing toilets, or other non-potable uses, reducing the demand for potable water and conserving resources.

**Energy Recovery:** Energy recovery systems, such as biogas capture or heat recovery, can be used to generate energy from the treatment process, reducing energy costs and promoting sustainability.

**Proper Disposal of Residual Sludge:** The residual sludge from the treatment process must be appropriately disposed of to prevent contamination of the environment. This may involve further treatment or disposal at a certified facility.

By implementing wastewater treatment systems in universities, the amount of wastewater pollution can be reduced, and the water quality in the surrounding environment can be improved. It is essential to choose suitable treatment systems based on the size of the university and local regulations and to properly maintain and monitor the systems to ensure maximum efficiency and compliance with regulatory standards.









Waste Water Treatment

# 1 2 3 4 5 6 7 8 9 1

SRMPAC is committed to minimizing water discharge from its campus by maximizing water harvesting within the premises. Through the implementation of various recharge wells, we ensure that a significant portion of rainwater is retained on-site for reuse.

While we currently have ample freshwater availability, the need for waste water treatment has not arisen due to our proactive water conservation measures.









Using treated wastewater in universities can provide several benefits, including reducing demand for potable water, conserving resources, and promoting sustainability. Here are some key ways that treated wastewater can be used in universities:

**Irrigation:** Treated wastewater can be used for irrigation of landscaping and agriculture, reducing the demand for potable water and conserving resources.

**Toilet Flushing:** Treated wastewater can be used for toilet flushing, reducing the demand for potable water and conserving resources.

**Cooling Systems:** Treated wastewater can be used in cooling systems, reducing the demand for potable water and conserving resources.

**Fire Protection:** Treated wastewater can be used for fire protection systems, reducing the demand for potable water and conserving resources.

**Industrial Uses:** Treated wastewater can be used for industrial processes that do not require potable water, reducing the demand for potable water and conserving resources.

It is essential to ensure that treated wastewater is safe for its intended use and that all regulatory standards are met. This requires proper treatment and monitoring of the wastewater treatment system.

Treated wastewater must also be clearly labeled and separated from potable water to avoid accidental consumption. Finally, communicating and educating the university community about the benefits and safe use of treated wastewater can promote acceptance and support for these sustainable practices.









# 1 2 3 4 5 6 7 8 9 10

SRMPAC responsibly utilizes gray water to flush toilets and irrigate vegetated areas, reducing our reliance on freshwater resources. However, it is essential to note that we have yet to install wastewater treatment facilities to further enhance our sustainable water management practices.











8. Water Use Monitoring

Water use monitoring in universities is critical to help identify water usage patterns and areas where water conservation measures can be implemented. Here are some essential steps for implementing water use monitoring in universities:

**Identify the Scope of the Monitoring:** Determine which buildings, areas, and water fixtures will be included in the monitoring program. This will depend on the size of the university and the availability of resources for monitoring.

**Install Water Meters:** Install water meters on all significant water lines and fixtures to measure water usage over time. This can help identify patterns and areas where water conservation measures can be implemented.

**Collect and Analyze Data:** Collect and analyze water usage data to identify areas of high water usage and potential areas for water conservation measures. This can also help track progress over time and identify trends.

**Set Targets and Goals:** Set targets and goals for water conservation based on the data collected. These can include reducing overall water usage or reducing water usage in specific areas or buildings.

**Implement Water Conservation Measures:** Implement water conservation measures based on the data and targets set. These can include repairing leaks, installing water-efficient fixtures, and promoting water-saving behaviors.

**Communicate with the University Community:** Communicate the goals and progress of the water use monitoring program to the university community. This can promote support and participation in water conservation efforts.

By implementing a water use monitoring program in universities, water usage patterns can be identified, and water conservation measures can be implemented to reduce overall water usage and promote sustainability. Therefore, it is essential to regularly monitor and analyze the data and communicate the progress and goals to the university community to maintain support and participation.









8. Water Use Monitoring

# 1 2 3 4 5 6 7 8 9 1

SRMPAC implements a robust water monitoring system with flow meters strategically placed across various facilities. These meters provide real-time data on water consumption, enabling the institution to track usage patterns daily, weekly, and monthly.

The system is designed to issue real-time alerts in case of water overflow, leakages, or dripping. This proactive approach ensures that potential issues are promptly addressed, minimizing wastage and promoting judicious water consumption throughout the campus.

SRMPAC demonstrates its commitment to sustainability and responsible resource management by closely monitoring water usage and swiftly responding to anomalies. This initiative helps conserve water and contributes to the institution's overall environmental stewardship efforts.

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Achieving good air quality is an essential aspect of sustainability in a Green University. Following critical practices that can help achieve good air quality:

**Energy-efficient HVAC Systems:** A Green University should prioritize energy-efficient heating, ventilation, and air conditioning (HVAC) systems that minimize the energy needed to heat or cool the building while maintaining good indoor air quality.

**Use of Non-Toxic Cleaning Products:** A Green University should prioritize using non-toxic cleaning products to reduce the amount of harmful chemicals released into the air.

**Proper Waste Management:** A Green University should prioritize appropriate waste management practices, including recycling and composting, to reduce the amount of waste sent to landfills. Landfills are a significant source of air pollution and can contribute to poor air quality.

**Green Transportation:** A Green University should promote sustainable transportation options, such as biking, walking, or taking public transportation, to reduce the number of vehicles on campus.

**Proper Ventilation:** A Green University should prioritize adequate ventilation to ensure good indoor air quality. This can include using natural ventilation, such as opening windows, or mechanical ventilation systems that bring in fresh air.

**Building Materials:** A Green University should prioritize using low-emission building materials, such as low-VOC paint, to reduce the amount of harmful chemicals released into the air.









Tobacco smoke control is an important issue for universities, as exposure to secondhand smoke can have negative health effects on students, faculty, and staff. Here are some key principles for implementing tobacco smoke control measures in universities:

**Establish Smoke-Free Policies:** Establishing smoke-free policies for all campus buildings, facilities, and grounds is an important step in reducing exposure to secondhand smoke. These policies should be communicated clearly to students, faculty, and staff.

**Provide Smoking Cessation Resources:** Providing resources and support for smoking cessation, such as counseling and nicotine replacement therapy, can help smokers quit and reduce secondhand smoke exposure for others.

**Create Designated Smoking Areas:** If smoking is allowed on campus, create designated smoking areas in non-residential areas away from building entrances and common areas. These areas should be well-ventilated and have appropriate ashtrays for cigarette butts.

**Enforce Policies:** Enforce smoke-free policies through signage, education, and disciplinary actions if necessary. This will help promote compliance and reduce exposure to secondhand smoke.

**Monitor Air Quality:** Monitor air quality in buildings and other areas where smoking is allowed to ensure that levels of secondhand smoke are not harmful to non-smokers.

**Promote Awareness and Education:** Promote awareness and education about the risks of smoking and exposure to secondhand smoke through public health campaigns, educational programs, and community outreach.

By implementing tobacco smoke control measures in universities, the health and well-being of students, faculty, and staff can be promoted. It is important to establish clear policies, provide support for smoking cessation, and enforce policies to promote compliance and reduce exposure to secondhand smoke.









**Tobacco Smoke Control** 

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SRMPAC, the college campus, prohibits smoking in all areas.

This prohibition extends to indoor and outdoor spaces, ensuring that students, faculty, and staff are not exposed to harmful tobacco smoke. The implementation of anti-smoking policies involves clear communication of rules and regulations, as well as the enforcement of penalties for those who violate the policy.

By creating a smoke-free environment, the college aims to protect the health and well-being of its community members and promote a cleaner, healthier campus atmosphere.











Daylighting and the daylight factor are closely related concepts essential for sustainable building design in universities.

Daylighting is using natural light to illuminate interior spaces in buildings, reducing the need for artificial lighting and promoting energy efficiency. It involves strategically placing windows, skylights, and other openings to maximize the natural light entering a space while minimizing glare and overheating.

The daylight factor is a quantitative measure of the amount of natural light that reaches the interior of a building. It is calculated as the ratio of the amount of light that enters a space through windows and skylights to the amount of light that would enter the room if the entire window or skylight was open to the sky.

The daylight factor is expressed as a percentage and is typically measured at a height of 0.75 meters above the floor. In universities, daylighting and the daylight factor are essential considerations for promoting energy efficiency, improving productivity and comfort, and reducing environmental impact.

The following principles can help Universities can achieve daylighting and daylight factor.

**Design Buildings for Daylighting:** Incorporate daylighting into the design of new buildings and renovations by placing windows and skylights strategically to allow for maximum natural light.

**Use Daylighting Controls:** Use automated shading and dimming systems to regulate the amount of natural light in a space and reduce the need for artificial lighting.

Optimize window and skylight placement: Optimize the placement of windows and skylights to maximize natural light while minimizing glare and direct sunlight.

**Use Shading Devices:** Use shading devices, such as blinds and shades, to control the amount of natural light in a space and reduce glare and overheating.

**Monitor and Adjust:** Monitor the daylight factor regularly and adjust shading devices to maintain a comfortable and productive learning and working environment.

By implementing daylighting and the daylight factor in universities, natural light can be maximized, reducing the need for artificial lighting and promoting energy efficiency. Additionally, natural light has improved productivity and comfort for students and faculty, promoting a positive learning and working environment. Therefore, it is essential to design buildings for daylighting, use daylighting controls and shading devices, optimize window and skylight placement, and monitor and adjust as necessary to promote sustainable and comfortable learning and working environments.









## 1 2 3 4 5 6 7 3 9 10

Indoor environmental conditions significantly impact students' health, well-being, and academic performance, with daylighting crucial. Harnessing natural daylight in classrooms enhances user comfort and boosts academic performance while promoting energy efficiency in buildings.

At SRMPAC, most regularly occupied spaces are designed to maximize natural daylight, ensuring optimal daylight levels throughout the campus.











Fresh air ventilation is an essential component of sustainable building design in universities. It involves the controlled introduction of fresh air into a building to maintain indoor air quality, reduce the risk of indoor pollutants, and promote occupant health and well-being.

In universities, fresh air ventilation can be achieved through a variety of strategies, including natural ventilation, mechanical ventilation, or a combination of both. Here are some key principles for implementing fresh air ventilation in universities:

**Determine Ventilation Requirements:** Determine the ventilation requirements for each space based on the number of occupants and the type of activities that occur in the space.

**Use Natural Ventilation Where Possible:** Where possible use natural ventilation strategies, such as operable windows, to introduce fresh air into a space and reduce the need for mechanical ventilation.

**Use Mechanical Ventilation When Needed:** In spaces where natural ventilation is not feasible, use mechanical ventilation systems, such as air handling units, to introduce fresh air into a space.

**Use Energy Recovery Systems:** Use energy recovery systems, such as heat recovery ventilation (HRV) or energy recovery ventilation (ERV), to reduce the energy required for ventilation while still maintaining indoor air quality.

**Monitor and Adjust:** Monitor ventilation systems regularly to ensure that they are functioning properly and adjust them as necessary to maintain indoor air quality and occupant comfort.

By implementing fresh air ventilation in universities, indoor air quality can be maintained, reducing the risk of indoor pollutants and promoting occupant health and well-being. Additionally, by using natural ventilation strategies and energy recovery systems, energy can be saved, and sustainability can be promoted. It is important to determine ventilation requirements, use natural ventilation where possible, use mechanical ventilation when needed, uses energy recovery systems, and monitor and adjust ventilation systems as necessary to promote a sustainable and comfortable learning and working environment.







Fresh Air Ventilation

# 0 2 3 4 5 6 7 3 9 10

A well-designed ventilation system is essential for maintaining indoor air quality by exchanging stale indoor air with fresh outdoor air. This process helps to remove harmful pollutants, bacteria, and odors, creating a healthier and more comfortable environment for everyone inside the building.

In classrooms, laboratories, libraries, and indoor game facilities, where students and faculty spend significant time, adequate ventilation is essential to ensure optimal learning and working conditions.

At SRMPAC, the ventilation systems in these areas are carefully designed and maintained to meet recommended standards for indoor air quality. This includes proper air exchange rates, filtration to remove particulate matter, and control of humidity levels to prevent mold growth and moisture-related issues.

By prioritizing ventilation, SRMPAC demonstrates its commitment to providing a safe and healthy environment for its students and faculty members, ultimately supporting their academic and professional success.











The area of a classroom in a university can vary depending on the number of students and the type of activities that will take place in the space. However, there are some general guidelines and standards that can be used to determine the appropriate size for a classroom.

The Compendium of Architectural Norms and Guidelines for Educational Institutions of CPWD India has established standards for classroom sizes based on the number of students and the type of activities that will take place in the space.

The classroom area should also be designed to provide sufficient space for the various activities that will take place in the space, such as lectures, discussions, and group work. The classroom layout should allow for clear sightlines to the instructor and the board or screen and should provide sufficient space for seating, circulation, and storage.

Additionally, the classroom should be designed with acoustics in mind to ensure that sound is properly distributed and that there is minimal noise disturbance from external sources. Lighting should also be considered to provide adequate illumination for the various activities that will take place in the space.

In summary, the appropriate area for a classroom in a university will depend on various factors, such as the number of students and the type of activities that will take place in the space. However, established standards and guidelines can be used to ensure that the classroom provides sufficient space, clear sightlines, and proper acoustics and lighting for a comfortable and productive learning environment.











SRMPAC ensures that all learning spaces, including classrooms, adhere to statutory standards and norms regarding appropriate occupant density.

This meticulous design approach meets regulatory requirements and enhances student productivity and comfort within these spaces











### **5. Anthropometric Dimensions in spaces**

Anthropometric dimensions refer to the measurements of the human body and are an important consideration in the design of built-up spaces in universities. Designing spaces with appropriate anthropometric dimensions ensures that the spaces are comfortable and accessible for the occupants and can help to promote a healthy and productive learning environment.

Here are some common anthropometric dimensions to consider when designing built-up spaces in universities:

**Seating Height:** The height of chairs or benches should be appropriate for the intended occupants to ensure that they can comfortably sit and work for extended periods. The recommended seating height is between 16 and 20 inches for most adults.

**Desk or Table Height:** The height of desks or tables should be appropriate for the intended occupants to ensure that they can comfortably work and maintain good posture. The recommended desk or table height is between 28 and 30 inches for most adults.

**Door Width:** Doorways should be wide enough to accommodate the passage of people and equipment, including those with mobility aids. The recommended door width is at least 32 inches.

**Aisle Width:** Aisles and passageways should be wide enough to allow for the safe and efficient movement of people and equipment. The recommended aisle width is at least 36 inches.

**Corridor Width:** Corridors should be wide enough to allow for the safe and efficient movement of people and equipment, as well as to provide a sense of openness and accessibility. The recommended corridor width is at least 6 feet.

**Ceiling Height:** The height of ceilings can have a significant impact on the perceived spaciousness and comfort of a space. The recommended ceiling height for most built-up spaces in universities is between 9 and 10 feet.

By designing built-up spaces in universities with appropriate anthropometric dimensions, a comfortable and accessible environment can be created for the occupants. This can help to promote a healthy and productive learning environment and contribute to the overall well-being of the university community.

By designing restrooms in universities with appropriate anthropometric dimensions associated with toilet seat height, Toilet stall depth,

Grab bar height, Sink height, and Mirror height must be maintained to make toilets comfortable and accessible. This can help to promote hygiene, privacy, and overall well-being of the university community.









**Anthropometric Dimensions in spaces** 

# 1 2 3 4 5 6 7 8 9 10

Anthropometry refers to the study of human body measurements and proportions. In the context of building design, anthropometry involves considering these measurements and proportions to create comfortable and functional spaces for human occupants.

When designing learning spaces such as classrooms, laboratories, libraries, and other facilities, anthropometric principles are applied to ensure that the layout, furniture, and amenities accommodate the diverse physical characteristics of students and staff.

This includes factors such as the height of desks and chairs, the spacing between seating areas, the placement of windows and doors for optimal natural light and ventilation, and the accessibility of amenities for individuals with disabilities.

By adhering to standard anthropometric dimension norms, institutions like SRMPAC ensure that their learning environments promote comfort, safety, and productivity for everyone using these spaces.

This approach acknowledges the diversity of human bodies and aims to create inclusive environments that support the needs of all individuals, regardless of their size, abilities, or preferences.











Creating a toxin-free environment in a university is an important aspect of promoting the health and well-being of students, faculty, and staff. Here are some strategies that can be implemented to create a toxin-free environment in a university:

**Use of Non-Toxic Cleaning Products:** Traditional cleaning products can contain toxic chemicals that can be harmful to the health of occupants. Consider using non-toxic cleaning products that are safe for both humans and the environment.

**Avoidance of Chemical Pesticides:** Chemical pesticides can have negative effects on both human health and the environment. Consider implementing integrated pest management strategies that use non-toxic methods of pest control, such as trapping or exclusion.

**Proper Ventilation:** Proper ventilation can help to reduce the concentration of indoor air pollutants, such as volatile organic compounds (VOCs) and carbon monoxide. Ensure that HVAC systems are properly maintained and that air filters are regularly changed.

**Use of Non-Toxic Building Materials:** Building materials, such as flooring, paint, and insulation, can contain toxic chemicals that can off-gas into the indoor environment. Consider using non-toxic building materials that are free from harmful chemicals.

**Indoor Plant Installation:** Indoor plants can help to purify the air by absorbing pollutants and producing oxygen. Consider installing indoor plants in common areas, such as classrooms and offices.

**Proper Waste Management:** Proper waste management can help to reduce the amount of toxins that are released into the environment. Consider implementing recycling and composting programs to divert waste from landfills.

By implementing these strategies, a university can create a toxin-free environment that promotes the health and well-being of occupants.







6. Toxin-free Environment

# 1 2 3 4 5 6 7 8 9 10

Implementing a policy to use materials with low emissions is a proactive step towards ensuring a healthier indoor environment within the college premises. Here are some examples of materials with low emissions commonly used in educational institutions:

- 1. **Low-VOC Paints:** Volatile Organic Compounds (VOCs) are chemicals that can vaporize into the air and contribute to indoor air pollution. Low-VOC paints have reduced these harmful emissions, making them a safer option for indoor spaces.
- 2. Formaldehyde-Free Wood Products: Formaldehyde is a common indoor air pollutant emitted by certain wood products, such as plywood and particleboard. Using formaldehyde-free alternatives helps minimize exposure to this harmful substance.
- **3. Green Building Materials:** Materials certified by organizations like the Leadership in Energy and Environmental Design (LEED) or the Green Building Initiative (GBI) are designed to meet strict environmental and health standards, including low emissions.
- 4. **Natural Flooring Options:** Flooring materials such as cork, bamboo, and linoleum are considered eco-friendly and often have lower emissions than synthetic alternatives like vinyl or carpeting.
- 5. **Low-Emission Furniture:** Furniture made from sustainable materials and finished with low-VOC coatings or adhesives can contribute to better indoor air quality.
- 6. **Eco-Friendly Insulation:** Insulation materials with low emissions, such as recycled denim or cellulose, help maintain comfortable indoor temperatures while minimizing environmental impact.
- 7. Non-Toxic Cleaning Products: Using environmentally friendly cleaning products reduces the release of harmful chemicals into the air and promotes a healthier indoor environment for students and staff.

By adopting these materials and practices, colleges like SRMPAC can create safer, more sustainable learning environments conducive to the well-being and productivity of all occupants.







Creating a dust-free environment in a university is important for promoting the health and well-being of students, faculty, and staff. Dust can contain a variety of allergens and pollutants that can cause respiratory problems and exacerbate existing health conditions. Here are some strategies that can be implemented to create a dust-free environment in a university:

**Regular Cleaning:** Regular cleaning is essential for maintaining a dust-free environment. Ensure that floors, walls, and surfaces are cleaned regularly to prevent the accumulation of dust.

**Use of HEPA Filters:** High-efficiency particulate air (HEPA) filters can help to remove dust particles from the air. Consider using HEPA filters in HVAC systems and portable air purifiers.

**Proper Ventilation:** Proper ventilation can help to reduce the concentration of dust particles in the air. Ensure that HVAC systems are properly maintained and that air filters are regularly changed.

**Reduction of Clutter:** Clutter can trap dust particles and make cleaning more difficult. Encourage occupants to keep their spaces tidy and free from clutter.

**Use of Doormats:** Doormats can help to reduce the amount of dust that is tracked into buildings. Consider using doormats at building entrances to help prevent dust from entering the building.

**Use of Natural Cleaning Products:** Traditional cleaning products can contain chemicals that can contribute to the accumulation of dust. Consider using natural cleaning products that are free from harmful chemicals.

By implementing these strategies, a university can create a dust-free environment that promotes the health and well-being of occupants.






#### **AIR QUALITY LEVEL**



7. Dust-free Environment

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The governing body of SRMPAC has implemented a policy aimed at using dust-free products, including alternatives to chalk and other materials, to mitigate adverse health impacts on students and faculty members.

- **1. Digital Whiteboards:** These electronic devices are an alternative to traditional chalkboards, allowing instructors to write and display information digitally without generating chalk dust.
- 2. Dry-Erase Markers and Boards: Dry-erase markers and boards offer a dust-free option for writing and displaying information in classrooms and meeting spaces, which can be easily wiped clean with a dry cloth or eraser.
- **3. Interactive Display Panels:** These interactive screens provide a digital platform for presenting information, collaborating on projects, and engaging with multimedia content without chalk or erasers.
- 4. **Projectors and Screens:** Projectors and projection screens enable instructors to display presentations, videos, and other visual content digitally, eliminating the need for chalk dust associated with traditional methods of instruction.
- 5. Electronic Document Cameras: Document cameras allow instructors to display documents, textbooks, and other materials digitally, reducing the reliance on printed materials and minimizing dust accumulation in the classroom.
- 6. **Tablet Devices:** Tablets with stylus pens or touchscreens offer a dust-free alternative for note-taking, drawing, and interactive learning activities in various educational settings.
- 7. **Computer Software:** Educational software applications and online learning platforms provide virtual environments for delivering course content, conducting assessments, facilitating collaborative learning experiences, and reducing the use of physical materials and associated dust.

By incorporating these dust-free products and technologies into the college's classrooms and learning environments, SRMPAC ensures a healthier and more conducive atmosphere for students and faculty members.







**AIR QUALITY LEVEL** 



Exhaust systems in a university are an important component of building ventilation systems. Exhaust systems are responsible for removing stale air and pollutants from indoor spaces and replacing them with fresh outdoor air. Here are some types of exhaust systems commonly found in universities:

**Bathroom Exhaust Fans:** Bathroom exhaust fans are typically installed in restrooms to remove excess moisture and odors. They help to prevent the growth of mold and mildew and improve indoor air quality.

**Kitchen Exhaust Systems:** Kitchen exhaust systems are designed to remove cooking fumes, smoke, and odors from commercial kitchens. They typically consist of hoods, ducts, and fans and are important for maintaining good indoor air quality and preventing fire hazards.

**Laboratory Exhaust Systems:** Laboratory exhaust systems are designed to remove hazardous fumes and pollutants from laboratory spaces. They are typically equipped with high-efficiency filters and fans to ensure that hazardous substances are safely removed from the building.

**General Exhaust Systems:** General exhaust systems are used to remove stale air and pollutants from common areas, such as hallways and lobbies. They help to maintain good indoor air quality and prevent the buildup of pollutants.

**Parking Garage Exhaust Systems:** Parking garage exhaust systems are designed to remove vehicle exhaust fumes and pollutants from enclosed parking garages. They typically consist of fans and ducts and are important for maintaining good indoor air quality and preventing the buildup of pollutants.

By ensuring that exhaust systems are properly installed and maintained, a university can ensure good indoor air quality and promote the health and well-being of occupants.







**AIR QUALITY LEVEL** 



8. Exhaust Systems

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Indoor air quality (IAQ) plays a crucial role in maintaining the health and well-being of students and faculty members in educational institutions like SRMPAC. Poor IAQ can lead to various health issues, such as respiratory problems, allergies, headaches, fatigue, and overall discomfort, ultimately affecting students' academic performance and faculty members' productivity.

By installing exhaust fans in critical areas like toilets, urinals, canteens, and laboratories, SRMPAC ensures proper ventilation and air circulation, thereby reducing the concentration of indoor air pollutants.

These fans help expel harmful substances like mold spores, volatile organic compounds (VOCs), bacteria, and odors commonly found in confined spaces with inadequate ventilation.

Improved IAQ, facilitated by the exhaust fans, creates a healthier and more comfortable environment for students and faculty members. Clean air enhances concentration, cognitive function, and overall well-being, leading to better academic performance and productivity. Additionally, it reduces the risk of respiratory infections and other health issues associated with poor air quality, promoting a conducive learning and working environment for all.



Energy sourcing and saving practices are critical components of sustainability in a Green University. Some essential techniques that can help achieve these goals:

**Renewable Energy:** A Green University should prioritize the use of renewable energy sources, such as solar, wind, or geothermal power, to reduce reliance on fossil fuels and reduce greenhouse gas emissions.

**Energy-efficient Lighting:** A Green University should use energy-efficient lighting systems, such as LED lights, to reduce energy consumption.

**Energy-efficient Appliances:** A Green University should use energy-efficient appliances, such as refrigerators and washing machines, to reduce energy consumption.

**Energy Audits:** A Green University should conduct regular energy audits to identify areas of high energy use and implement measures to reduce energy consumption.

**Behavioral Changes:** A Green University should encourage sustainable energy practices among its students, faculty, and staff. This can include promoting energy-saving behaviors, such as turning off lights and electronics when not in use and providing education on the importance of energy conservation.

**Green University Accreditation:** A Green University should consider obtaining green University Accreditation from Green Mentors to demonstrate its commitment to sustainability and energy efficiency.









1. Ozone Depleting Substances

Ozone-depleting substances (ODS) are chemicals that can cause damage to the earth's ozone layer, which protects us from harmful ultraviolet radiation. These substances are commonly used in refrigeration, air conditioning, fire suppression systems, and other applications. Here are some ways in which a university can reduce its use of ODS:

**Retrofitting Equipment:** Old equipment that uses ODS can be retrofitted with alternative refrigerants that are more environmentally friendly. This can help to reduce the amount of ODS that is released into the atmosphere.

**Purchasing Equipment with Alternative Refrigerants:** When purchasing new equipment, choose models that use alternative refrigerants that are less harmful to the environment. This can help to reduce the university's overall use of ODS.

**Proper Disposal of ODS:** ODS should be properly disposed of to prevent them from entering the atmosphere. Work with qualified technicians to ensure that ODS are properly recovered and disposed of in accordance with local regulations.

**ODS Awareness and Training:** Educate staff, students, and faculty about the dangers of ODS and the importance of reducing their use. Training programs can help to raise awareness and promote responsible behavior.

Use of Alternatives: Consider using alternative products and technologies that do not contain ODS.

For example, fire suppression systems can be replaced with alternatives that use inert gases or water mist.

By taking these steps, a university can reduce its use of ODS and help to protect the earth's ozone layer. This can have a positive impact on the environment and the health of future generations.









**Ozone Depleting Substances** 

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SRMPAC is committed to minimizing its impact on the Earth's protective ozone layer by carefully selecting refrigerators, air conditioners, fire extinguishers, foam, and aerosol propellants that utilize ozone-friendly substances, thereby reducing the use of ozone-depleting chemicals.











Energy-efficient lighting fixtures are an important part of any university's efforts to reduce energy consumption and lower operating costs. Here are some examples of energy-efficient lighting fixtures that can be used in universities:

**LED Lighting:** LED lights are highly energy-efficient and can last up to 25 times longer than traditional incandescent bulbs. LED lighting can be used in various applications, including classrooms, offices, and outdoor spaces.

**CFL Lighting:** Compact fluorescent lights (CFLs) are another energy-efficient lighting option. They use up to 75% less energy than incandescent bulbs and can last up to 10 times longer.

**Occupancy Sensors:** Occupancy sensors can be used to automatically turn off lights in unoccupied areas, such as classrooms or offices. This can help to reduce energy waste and lower operating costs.

**Daylight Harvesting Systems:** Daylight harvesting systems use sensors to automatically adjust the amount of artificial light based on the available natural light. This can help to reduce energy consumption and improve the quality of light in indoor spaces.

**Task Lighting:** Task lighting is designed to provide lighting for specific tasks, such as reading or computer work. By using task lighting instead of overhead lighting, energy consumption can be reduced while maintaining adequate lighting levels.

By implementing energy-efficient lighting fixtures, a university can reduce its energy consumption and operating costs while also improving the quality of light in indoor spaces. Additionally, energyefficient lighting fixtures can contribute to a more sustainable and environmentally friendly campus.

University has installed LED Lighting & Fixtures instead of old Lightning that reduces the environmental impacts associated with energy use.

University decided to replace all the old structured 36 W fluorescent-based lighting modules by 18 W LED T/L,  $2 \times 2$  LED panels and required efficient lighting where needed.







#### **Energy Efficient Lighting Fixtures**

## 1 2 3 4 5 6 7 3 9 10

SRMPAC prioritizes using natural light to enhance the learning environment for its students and faculty. In addition to maximizing natural light sources, the college has implemented energy-efficient lighting solutions to reduce power consumption. This transition includes replacing high-power consumption lights with LED lighting, such as incandescent and high-discharge lamps.

LED lighting ensures a safe and secure campus environment and contributes to energy efficiency and cost savings. By opting for LED fixtures, SRMPAC reduces operational expenses while meeting the needs of its academic community. Furthermore, the durability of LED lighting makes it an ideal choice for the demanding conditions of a university campus.

The adoption of LED lighting at SRMPAC results in significant cost savings and minimizes the environmental impact associated with energy consumption. Compared to traditional light bulbs, LED bulbs consume less than half the energy, reducing repair, operating, and maintenance costs. This proactive approach aligns with the college's commitment to sustainability and responsible resource management.











Energy-efficient fans and air-conditioners are important in universities as they can help reduce energy consumption and lower operating costs. Here are some examples of energy-efficient fans and air-conditioners that can be used in universities:

**High-Efficiency Ceiling Fans:** Ceiling fans can be a cost-effective way to cool indoor spaces. High-efficiency ceiling fans can be up to 20% more efficient than standard ceiling fans, helping to reduce energy consumption and lower operating costs.

**Variable Speed Air Handlers:** Variable-speed air handlers can be used with central airconditioning systems to help reduce energy consumption. These systems can adjust the speed of the fan based on the cooling needs of the indoor space, helping to save energy and reduce operating costs.

**Energy-Efficient Window Air-Conditioners:** Window air-conditioners can be an energy-efficient option for cooling small spaces, such as individual offices or dorm rooms. Look for models with the BEE STAR rating 1 to 5, the ascending order of energy efficiency, which indicates that they meet the energy efficiency level.

**Split-System Air-Conditioners:** Split-system air-conditioners are designed to cool individual rooms or spaces. They are more energy-efficient than traditional central air-conditioning systems, as they only cool the spaces that need them.

**Heat Pumps:** Heat pumps can be used for both heating and cooling indoor spaces. They are more energy-efficient than traditional heating and cooling systems, as they transfer heat rather than create it. Heat pumps are particularly effective in moderate climates.

By implementing energy-efficient fans and air-conditioners, a university can reduce its energy consumption and operating costs while maintaining a comfortable indoor environment for students, staff, and faculty. Additionally, energy-efficient fans and air-conditioners can contribute to a more sustainable and environmentally friendly campus.









Energy Efficient Fans

## 1 2 3 4 5 6 7 8 9 10

SRMPAC has taken significant steps towards reducing its environmental footprint by replacing high-energy-consuming fans and air conditioners with energy-efficient alternatives. This proactive measure aligns with the college's commitment to sustainability and responsible resource management.

By installing energy-efficient fans and air conditioners, SRMPAC minimizes overall energy consumption and reduces environmental impact. These energy-efficient appliances help lower electricity bills and contribute to conserving natural resources and mitigating climate change.

Adopting energy-efficient fans and air conditioners underscores SRMPAC's dedication to promoting eco-friendly practices and fostering a greener campus environment. Through such initiatives, the college demonstrates its commitment to sustainability and strives to inspire others to follow suit in reducing energy consumption and preserving the planet for future generations.











4. Energy Efficiency in Appliances & Equipment

Energy efficiency in appliances and equipment is important in universities as it can help reduce energy consumption and lower operating costs. Here are some examples of energy-efficient appliances and equipment that can be used in universities:

**Energy-Efficient Computers and Monitors:** Energy-efficient computers and monitors can help reduce energy consumption in computer labs and offices. Look for models that have earned the BEE STAR label, which indicates that they meet energy efficiency guidelines set by the Bureau of Energy Efficiency.

**Energy-Efficient Refrigerators and Freezers:** Energy-efficient refrigerators and freezers can help reduce energy consumption in university dining halls, cafeterias, and research labs. Look for models that have earned the ENERGY STAR label, which indicates that they meet energy efficiency guidelines set by the Bureau of Energy Efficiency.

**Energy-Efficient HVAC Systems:** Energy-efficient heating, ventilation, and air conditioning (HVAC) systems can help reduce energy consumption in university buildings. Look for systems that have earned the ENERGY STAR label, which indicates that they meet energy efficiency guidelines set by the Bureau of Energy Efficiency.

**Energy-Efficient Lighting Controls:** Lighting controls, such as occupancy sensors and daylight harvesting systems, can help reduce energy consumption in university buildings by automatically adjusting lighting based on occupancy and available natural light.

**Energy-Efficient Water Heaters:** Energy-efficient water heaters can help reduce energy consumption in university dormitories and athletic facilities. Look for models that have earned the ENERGY STAR label, which indicates that they meet energy efficiency guidelines set by the Bureau of Energy Efficiency.

By implementing energy-efficient appliances and equipment, a university can reduce its energy consumption and operating costs while maintaining the necessary functionality of its facilities. Additionally, energy-efficient appliances and equipment can contribute to a more sustainable and environmentally friendly campus









**Energy Efficiency in Appliances & Equipment** 

## 1 2 3 4 5 6 7 8 9 10

SRMPAC has taken proactive measures to enhance energy efficiency by replacing outdated and energy-consuming electronic appliances with modern, STAR-rated alternatives. This strategic initiative aligns with the college's commitment to sustainability and responsible energy management.

SRMPAC significantly reduces its energy consumption and environmental impact by installing energy-efficient electronic appliances and equipment. These STAR-rated appliances, including freezers, ovens, stoves, dishwashers, clothes washers, and dryers, are designed to operate more efficiently, conserving energy and lowering electricity bills.

The transition to energy-efficient electronic appliances underscores SRMPAC's dedication to promoting eco-friendly practices and reducing its carbon footprint. Through such initiatives, the college demonstrates its commitment to sustainability and serves as a role model for adopting green technologies in the community.











5. Energy Sub-Metering

Energy sub-metering is the practice of installing meters to measure energy consumption in specific areas or systems within a building, such as lighting, HVAC, and plug loads. In a university setting, energy sub-metering can be used to identify areas of high energy consumption and implement energy-saving measures to reduce energy consumption and costs. Here are some benefits of energy sub-metering in universities:

**Identify Areas of High Energy Consumption:** Energy sub-metering can help identify areas of high energy consumption within a university. By identifying these areas, universities can target energy saving measures to reduce energy consumption and costs.

**Allocate Energy Costs:** Energy sub-metering can help allocate energy costs to specific departments or buildings within a university. This can provide an incentive for departments to reduce energy consumption and costs.

**Monitor Energy Performance:** Energy sub-metering can help monitor energy performance over time. By monitoring energy performance, universities can track energy consumption and identify trends or anomalies.

**Improve Sustainability:** Energy sub-metering can help universities achieve their sustainability goals by reducing energy consumption and carbon emissions.

When implementing energy sub-metering in a university, it is important to ensure that the meters are accurate, reliable, and installed correctly. Additionally, data from the meters should be collected and analyzed to identify opportunities for energy savings.









Energy Sub-Metering

## ) 2 3 4 5 6 7 8 9 10

SRMPAC diligently monitors energy consumption by implementing sub-metering and aspirate metering across all learning spaces, residential areas, and open spaces. This proactive approach enables continuous energy usage monitoring throughout the year, fostering a culture of reasonable energy use within the teaching-learning community.

Through meticulous monitoring and analysis of energy usage data, SRMPAC encourages faculty, staff, and students to adopt energy-saving practices in their daily activities. The college strives to minimize its environmental footprint and contribute to sustainability efforts by raising awareness and promoting responsible energy consumption habits.

SRMPAC's commitment to energy conservation is evident in its comprehensive monitoring initiatives, which empower individuals to make informed decisions about energy usage.

By fostering a culture of energy efficiency, the college demonstrates its dedication to environmental stewardship and sets an example for responsible resource management in the community.











On-site renewable energy in universities refers to the installation of renewable energy systems on university campuses to generate electricity or heat. On-site renewable energy can help universities reduce their reliance on fossil fuels and reduce their carbon emissions. Following options of on-site renewable energy systems that can be installed in universities:

**Solar Photovoltaic (PV) Systems:** Solar PV systems can be installed on university buildings or in open areas on campus to generate electricity. Solar PV systems are relatively low-maintenance and have a long life span, making them a good investment for universities.

**Wind Turbines:** Small-scale wind turbines can be installed on university campuses to generate electricity. Wind turbines require more maintenance than solar PV systems and are less reliable, but they can be a good option in areas with high wind speeds.

**Geothermal Heating and Cooling Systems:** Geothermal heating and cooling systems can be installed in university buildings to provide heating and cooling using energy from the ground. Geothermal systems are highly efficient and can reduce heating and cooling costs for universities.

**Biomass Heating Systems:** Biomass heating systems can be installed in university buildings to provide heat using renewable biomass fuels, such as wood chips or pellets. Biomass heating systems require regular maintenance and can be more expensive to install than other renewable energy systems, but they can provide a reliable source of heat for universities.

By installing on-site renewable energy systems, universities can reduce their energy consumption and carbon emissions while demonstrating their commitment to sustainability. Additionally, on-site renewable energy systems can provide educational opportunities for students and faculty, as well as research opportunities for university researchers.









**On-Site Renewable Energy** 

### 0 2 3 4 5 6 7 3 9 10

SRMPAC has taken a significant step towards sustainability by installing a 20 KVA Solar power plant as an on-site Renewable Energy Source. This initiative underscores the college's commitment to reducing its reliance on fossil fuels and mitigating environmental impact.

In addition to embracing renewable energy solutions, SRMPAC actively promotes energy conservation among its student community. Through awareness campaigns and educational initiatives, students are encouraged to adopt energy-saving practices daily.

By minimizing energy consumption, students contribute to the college's efforts to preserve natural resources and reduce greenhouse gas emissions.

By integrating renewable energy technology and promoting energy conservation behaviors, SRMPAC demonstrates its dedication to environmental stewardship and sustainability. These efforts benefit the college community and contribute to a greener and more sustainable future for all.











7. Solar Water Heating Systems

Solar water heating systems are a type of renewable energy system that can be installed in universities to heat water using energy from the sun. Solar water heating systems can be installed on university buildings, such as dormitories, gymnasiums, or cafeterias, to provide hot water for showers, sinks, and other uses.

Here are some benefits of installing solar water heating systems in universities:

**Energy Cost Savings:** Solar water heating systems can help universities save money on energy costs by reducing the need for electricity or natural gas to heat water.

**Reduced Carbon Emissions:** Solar water heating systems can help universities reduce their carbon emissions by using renewable energy to heat water.

**Educational Opportunities:** Solar water heating systems can provide educational opportunities for students and faculty to learn about renewable energy technologies and their applications.

**Increased Resilience:** Solar water heating systems can provide increased resilience to universities by providing hot water even during power outages or other disruptions to the electrical grid.

When installing solar water heating systems in universities, it is important to ensure that the systems are designed and installed correctly to maximize their efficiency and lifespan. Additionally, regular maintenance and monitoring should be performed to ensure that the systems are operating effectively and efficiently.









**Solar Water Heating Systems** 



Students do not currently reside in the hostel facilities, so there is no solar water heating system.

While such systems are known to minimize the environmental impact of using fossil fuels for heating water, the current absence of student residency has not necessitated warm water requirements during the day hours. Thus, implementing a solar water heating system has yet to be prioritized.









8. Distributed Power Generation

Distributed power generation is a type of energy system that involves generating electricity from small-scale power sources located close to the point of use instead of from a centralized power plant. Universities can benefit from distributed power generation by installing renewable energy systems such as solar panels or wind turbines on their campuses.

Here are some benefits of distributed power generation in universities:

**Reduced Energy Costs:** Distributed power generation can help universities save money on energy costs by generating electricity on-site and reducing their reliance on grid-supplied electricity.

**Reduced Carbon Emissions:** Distributed power generation can help universities reduce their carbon emissions by using renewable energy sources to generate electricity.

**Increased Resilience:** Distributed power generation can provide increased resilience to universities by providing a local source of electricity in case of power outages or other disruptions to the electrical grid.

**Educational Opportunities:** Distributed power generation can provide educational opportunities for students and faculty to learn about renewable energy technologies and their applications.

Examples of distributed power generation systems that can be installed in universities include:

**Solar Photovoltaic (PV) Systems:** Solar PV systems can be installed on university buildings or in open areas on campus to generate electricity.

Wind Turbines: Small-scale wind turbines can be installed on university campuses to generate electricity.

**Micro-Hydro Systems:** Micro-hydro systems can be installed on university campuses to generate electricity using the energy from flowing water.

**Combined Heat and Power (CHP) Systems:** CHP systems can be installed in university buildings to generate both electricity and heat from a single system.

By installing distributed power generation systems, universities can reduce their energy costs, carbon emissions, and reliance on grid-supplied electricity while demonstrating their commitment to sustainability.









**Distributed Power Generation** 

## 1 2 3 4 5 6 7 8 9 1

SRMPAC boasts a meticulously planned power distribution system, enabling power supervisors to regulate the supply in accordance with users' practical requirements.



Cumulative Score





Health and hygiene practices are essential considerations in a Green University, as they can help ensure the well-being of students, faculty, and staff while also promoting sustainability. Following critical practices that can help achieve these goals:

**Clean Drinking Water:** A Green University should prioritize clean drinking water by regularly testing and treating the water supply to ensure it meets quality standards.

**Sustainable Food Options:** A Green University should prioritize sustainable food options, such as locally sourced and organic foods, to promote healthy eating and reduce the environmental impact of food production.

**Handwashing and Sanitizing Stations:** A Green University should provide ample handwashing and sanitizing stations throughout its buildings to promote good hygiene and prevent the spread of illness.

**Safe and Sustainable Cleaning Products:** A Green University should prioritize using safe and sustainable cleaning products to reduce the amount of harmful chemicals released into the environment.

**Waste Management:** A Green University should prioritize proper waste management practices, including recycling and composting, to reduce the amount of waste sent to landfills.

**Sustainable Transportation:** A Green University should promote sustainable transportation options, such as biking, walking, or taking public transportation, to reduce the number of vehicles on campus. This can help reduce air pollution and promote good health.

**Mental Health Support:** A Green University should prioritize mental health support services for its students, faculty, and staff to promote overall well-being.









Restrooms and toilets are important facilities in universities that need to be designed to meet the needs of the students, faculty, and staff. Proper design and maintenance of these facilities can help promote hygiene, reduce water usage, and ensure accessibility for all. Some factors to be considered when designing restrooms and toilets in universities:

**Accessibility:** Restrooms and toilets should be designed to be accessible for people with disabilities, including wheelchair users. This includes providing adequate space, grab bars, and accessible fixtures.

**Gender Inclusivity:** Restrooms and toilets should be designed to be inclusive of all gender identities, with options for single-user restrooms and multi-user restrooms with privacy features.

**Hygiene:** Restrooms and toilets should be designed to promote good hygiene, with features such as touchless fixtures, automatic flush systems, and hand sanitizing stations.

**Water Efficiency:** Restrooms and toilets should be designed with water-efficient fixtures, such as low-flow toilets and faucets, to reduce water usage and promote sustainability.

**Maintenance:** Restrooms and toilets should be designed with ease of maintenance in mind, with durable and easy-to-clean materials and regular cleaning schedules.

When designing restrooms and toilets in universities, it is important to consider the specific needs and requirements of the campus community, as well as applicable laws and regulations related to accessibility and hygiene. Regular maintenance and monitoring should also be performed to ensure that the facilities are operating effectively and efficiently.









**Toilet Facilities** 

## 1 2 3 4 5 6 7 8 9 1

By outsourcing hygiene and cleanliness tasks to a local external cleaning agency, SRMPAC ensures that professional cleaning standards are upheld in all areas of the campus, especially in toilets.

This agency is responsible for regular cleaning and disinfecting of toilet facilities, including removing dirt, debris, and potentially harmful pathogens.

Their expertise in hygiene management contributes to creating a clean and safe environment for students and faculty members, reducing the risk of infections and promoting overall well-being.

This collaborative approach allows SRMPAC to focus on its core activities while ensuring that essential hygiene standards are met through the specialized services provided by the external agency.











Drinking water is a basic necessity, and providing access to clean and safe drinking water is an important aspect of ensuring the health and well-being of students, faculty, and staff in universities. A few suggested criteria associated with drinking water facilities in universities:

**Accessibility:** Drinking water facilities should be easily accessible to all members of the campus community, including people with disabilities. This may involve providing wheelchair-accessible fountains or bottle filling stations.

**Water Quality:** The quality of the drinking water provided in universities should meet or exceed applicable standards and regulations for drinking water. Regular testing and monitoring should be performed to ensure that the water is safe to drink.

**Water Conservation:** Drinking water facilities should be designed to promote water conservation, with features such as low-flow fountains and automatic shut-off valves.

**Maintenance:** Regular maintenance and cleaning of drinking water facilities are important to ensure their continued functionality and hygiene.

**Education:** Providing information to students, faculty, and staff about the importance of staying hydrated and the availability of drinking water facilities can help promote healthy habits and reduce waste from single-use water bottles.

When designing and maintaining drinking water facilities in universities, it is important to consider the needs and preferences of the campus community, as well as applicable laws and regulations related to water quality and accessibility. Providing access to clean and safe drinking water is an important step in promoting the health and well-being of the campus community.









Drinking Water Facility

## 1 2 3 4 5 6 7 8 9 10

SRMPAC prioritizes the maintenance of water quality at all drinking water stations and taps across the campus. Regular monitoring and testing of water quality are conducted by government laboratories to ensure that the drinking water provided to students, faculty, and staff is clean and safe.

These ongoing checks and reports guarantee that high standards of water quality are consistently upheld, promoting the health and well-being of everyone in the SRMPAC community.











Access to healthy foodfood is an important aspect of promoting the health and well-being of students, faculty, and staff in universities. The following can be considered while planning to provide access to healthy foodfood in universities:

**Availability:** Healthy food options should be readily available on campus, including in dining halls, cafes, vending machines, and other food service areas.

**Variety:** Offering a wide variety of healthy food options can help ensure that the needs and preferences of all members of the campus community are met.

**Nutrition:** Healthy food options should be nutritious, with an emphasis on fresh fruits and vegetables, whole grains, lean protein, and healthy fats.

**Affordability:** The cost of healthy food options should be comparable to other food options on campus to ensure that they are accessible to all members of the campus community.

**Sustainability:** The food options provided on campus should be sourced in a sustainable and socially responsible manner, with a focus on reducing waste and supporting local and organic food systems.

**Education:** Providing education and information about healthy eating habits can help promote healthy lifestyles and encourage members of the campus community to make informed food choices.

When designing and maintaining food service areas in universities, it is important to consider the needs and preferences of the campus community, as well as applicable laws and regulations related to food safety and accessibility. Providing access to healthy and nutritious foodfood is an important step in promoting the health and well-being of the campus community.









Access to Healthy Food

## 1 2 3 4 5 6 7 8 9 10

Ensuring access to healthy and nutritious food is essential for promoting overall health and wellbeing among students and teaching staff. At SRMPAC, the canteen facilities are designed to offer a variety of healthy meals that cater to individuals' dietary needs and preferences. The food provided is prepared with quality ingredients and adheres to hygiene and safety standards.

To manage the food services efficiently, SRMPAC has partnered with a local food-making agency, which oversees the catering operations. This partnership allows for regularly delivering fresh and well-prepared meals to the campus community.

Notably, the college enforces strict regulations against consuming junk food on campus premises. This policy aims to promote healthier eating habits among students and staff, reducing the intake of processed foods that may adversely affect health.

By prioritizing the availability of nutritious meals and prohibiting the consumption of junk food, SRMPAC emphasizes the importance of maintaining a healthy diet for the overall well-being of its teaching-learning community.









Sports amenities in universities are essential for promoting physical activity, encouraging healthy lifestyles, and providing opportunities for socialization and community building. Here are some standard sports amenities found in universities:

**Athletic Fields:** Universities often have athletic fields for sports such as soccer, football, lacrosse, and baseball.

**Indoor Gymnasiums:** Indoor gymnasiums may include basketball courts, volleyball courts, badminton courts, and other facilities for indoor sports.

**Fitness Centers:** Fitness centers typically include exercise equipment such as treadmills, ellipticals, weights, and resistance machines.

Swimming Pools: Swimming pools provide opportunities for aquatic sports and fitness activities.

Tennis and squash courts: Tennis and squash courts provide opportunities for racquet sports.

**Climbing Walls:** Climbing walls are becoming increasingly popular in universities, providing opportunities for rock climbing and other vertical activities.

**Outdoor Recreational Areas:** Universities may also have outdoor recreational areas for hiking, camping, and picnicking.

When designing and maintaining sports amenities in universities, it is essential to consider the needs and preferences of the campus community, as well as applicable laws and regulations related to safety and accessibility. In addition, providing a variety of sports amenities can help ensure that all campus community members have opportunities to engage in physical activity and promote healthy lifestyles.









**Sports Amenities** 

## 1 2 3 4 5 6 7 8 9 10

At SRMPAC, students have access to various sporting activities, including indoor and outdoor sports. Indoor facilities include spaces for activities like badminton, table tennis, or indoor basketball courts. In contrast, outdoor facilities include fields or courts for sports like football, cricket, volleyball, or athletics tracks.

These sports amenities are aimed at providing recreational opportunities and promoting physical fitness, teamwork, leadership, and discipline among students. Participation in sports activities helps students develop essential life skills such as time management, perseverance, and resilience.

Additionally, sports serve as a stress reliever and contribute to students' overall well-being and mental health.

The college also organize intercollegiate tournaments, intramural competitions, and sports events to encourage student participation and foster a sense of camaraderie and healthy competition among peers.

Moreover, access to quality sports facilities enables students to lead an active lifestyle and promotes a culture of fitness and wellness within the campus community.











5. Dedicated Playground

A dedicated playground for sports in a university can provide students, faculty, and staff with space for organized and informal sports activities. Points to be considered when designing a playground for sports in a university:

**Space:** The playground size will depend on the number and types of sports that will be played. Consider the size of the field or court needed for each sport, as well as any additional space for spectator seating, restrooms, and storage.

**Surface:** The type of surface used on the playground can affect the safety and performance of the athletes. Options include natural grass, synthetic turf, concrete, and asphalt.

**Lighting:** Adequate lighting is essential for evening and nighttime use of the playground. Consider the placement and brightness of the lights and any energy efficiency measures that can be implemented.

**Equipment:** Depending on the sports played, the playground may require equipment such as basketball hoops, soccer goals, volleyball nets, and tennis nets. It is important to ensure that the equipment is safe, durable, and properly maintained.

**Accessibility:** The playground should be accessible to all members of the campus community, including those with disabilities. This may involve the installation of ramps, accessible seating, and other features to ensure that the playground is compliant with relevant accessibility guidelines and regulations.

When designing a playground for sports in a university, it is important to involve stakeholders from across the campus community to ensure that the design meets the needs and preferences of all users. This may include student organizations, athletic departments, facilities management, and disability services offices.









Dedicated Playground

## 1 2 3 4 5 6 7 8 9 10

SRMPAC boasts a variety of sports facilities catering to both indoor and outdoor activities. While these facilities are utilized for a wide range of sports, the college places particular emphasis on promoting indigenous sports that have minimal impact on the local environment.











6. Organic Fertilizers and Pesticides

Using organic fertilizers and pesticides in a university can benefit the environment and the health of students, faculty, and staff. Here are some considerations when implementing organic fertilizers and pesticides in a university:

**Soil Health:** Organic fertilizers are made from natural materials and help to improve soil health by increasing microbial activity and promoting the growth of beneficial microorganisms. This can result in healthier plants and a more sustainable campus environment.

**Reduced Chemical Exposure:** Organic pesticides are made from natural ingredients and are less toxic than chemical pesticides, which can harm human health and the environment. Using organic pesticides can reduce the risk of exposure to these chemicals.

**Environmental Benefits:** Organic fertilizers and pesticides are generally considered more environmentally friendly than their chemical counterparts, as they do not contribute to water and air pollution or harm wildlife.

**Cost:** Organic fertilizers and pesticides can be more expensive than chemical products, but the long-term benefits to soil health and environmental sustainability may outweigh the upfront costs.

**Education:** Implementing organic fertilizers and pesticides in a university can also provide opportunities for education and outreach about sustainable practices and environmental stewardship. This can raise awareness among students, faculty, and staff about the importance of sustainable agriculture and pest management.

When implementing organic fertilizers and pesticides in a university, consulting with experts in sustainable agriculture and pest management is essential to ensure that the products used are effective and safe for the campus environment. Additionally, it may be necessary to invest in training for facilities management staff and groundskeepers to ensure they can implement these practices properly.









**Organic Fertilizers and Pesticides** 

## 1 2 3 4 5 6 7 8 9 1

SRMPAC prioritizes using organic fertilizers and pesticides to mitigate health risks for students and faculty. The college operates composting pits to produce sufficient organic fertilizers for the vegetated area, minimizing reliance on chemical-based alternatives.

- 1. **Organic Fertilizers and Pesticides:** SRMPAC avoids synthetic fertilizers and pesticides that contain harmful chemicals. Instead, the college opts for organic alternatives from natural materials such as compost, manure, and plant extracts. These organic options promote soil health and biodiversity while reducing the risk of exposure to harmful chemicals for students, faculty, and the environment.
- 2. Composting Pits: SRMPAC operates composting pits to convert organic waste generated on campus into nutrient-rich compost. This compost is a natural fertilizer for the college's vegetated areas, including gardens, lawns, and green spaces. By composting organic waste, the college reduces its reliance on chemical fertilizers, minimizes waste sent to landfills, and promotes sustainability.

SRMPAC's use of organic fertilizers and pesticides and its composting practices align with its commitment to environmental stewardship and the well-being of its campus community.











Green housekeeping in a university involves implementing sustainable cleaning practices to reduce the negative environmental impact of cleaning products and processes. Some criteria associated with green housekeeping in a university:

**Environmentally Friendly Cleaning Products:** Using environmentally friendly cleaning products can reduce the amount of harmful chemicals that are released into the environment. Look for cleaning products certified by organizations such as Green Seal or EcoLogo, and avoid products that contain volatile organic compounds (VOCs) or other harmful chemicals.

**Water Conservation:** Implementing water conservation measures during cleaning can reduce water use, such as using low-flow cleaning equipment and mops and minimizing water use for rinsing. Additionally, using microfiber cleaning cloths can help reduce water usage and the amount of cleaning product needed.

**Waste Reduction:** Implementing waste reduction measures such as using reusable cleaning cloths and mops, and reducing the use of disposable cleaning products, can help to reduce the amount of waste generated by the cleaning process.

**Energy Conservation:** Utilizing energy-efficient equipment such as vacuums and floor polishers can help reduce energy consumption during cleaning.

**Education:** Providing education and training for cleaning staff on sustainable cleaning practices and the proper use of cleaning products can help to ensure that these practices are implemented effectively.

By implementing green housekeeping practices in a university, the campus can reduce its environmental impact, improve indoor air quality, and promote sustainability. These practices can also improve the health and well-being of students, faculty, and staff by reducing their exposure to harmful chemicals and allergens.









Green Housekeeping

## 1 2 3 4 5 6 7 8 9 10

Green housekeeping, also known as eco-friendly or sustainable, refers to cleaning and maintaining spaces using methods and products that minimize negative environmental and human health impacts.

The goal of green housekeeping is to reduce the use of harmful chemicals, conserve resources such as water and energy, and promote a healthier indoor environment.

#### Some fundamental principles of green housekeeping include:

- 1. Use of environmentally friendly cleaning products: Green housekeeping prioritizes using products that are biodegradable, non-toxic, and free from harmful chemicals such as chlorine, ammonia, and phthalates. These products are safer for both human health and the environment.
- 2. Water conservation: Green housekeeping practices aim to minimize water usage by using efficient cleaning methods, such as microfiber cloths and mops that require less water, and by fixing leaks and drips promptly. Water-saving technologies, such as low-flow faucets and toilets, may be implemented to reduce water consumption further.
- **3. Energy efficiency:** Green housekeeping involves using energy-efficient appliances and equipment, such as vacuum cleaners and washing machines, to reduce energy consumption. Turning off lights and electronic devices when not used also helps conserve energy.
- 4. Waste reduction and recycling: Green housekeeping emphasizes appropriately disposing of waste materials and encourages recycling whenever possible, separating recyclable materials from non-recyclables and composting organic waste.
- 5. Indoor air quality: Green housekeeping practices focus on maintaining good indoor air quality by using ventilation systems to improve air circulation and avoiding harsh chemicals that can release harmful fumes. Natural air fresheners like essential oils may be used instead of synthetic fragrances.





Smt. R. M. Prajapati Arts College Satlasana, Mehsana

**HEALTH & HYGIENE PRACTICES** 

#### Some standard products used in green housekeeping include:

- 1. Environmentally friendly all-purpose cleaners
- 2. Vinegar and baking soda for natural cleaning
- 3. Biodegradable dish soap and laundry detergent
- 4. Microfiber cloths and mops
- 5. Eco-friendly glass and surface cleaners
- 6. Non-toxic carpet cleaners
- 7. Plant-based air fresheners
- 8. Recycled paper towels and toilet paper
- 9. Reusable cleaning tools and containers
- 10. Green-certified janitorial supplies.

SRMPAC prioritizes using organic fertilizers and pesticides to mitigate health risks for students and faculty. The college operates composting pits to produce sufficient organic fertilizers for the vegetated area, minimizing reliance on chemical-based alternatives.


A Green University should prioritize water conservation practices, such as low-flow faucets and toilets, to reduce water consumption on campus. The University can also implement rainwater harvesting systems to collect and reuse rainwater for non-potable uses like landscaping or toilet flushing.

**Materials Management:** A Green University should prioritize materials management practices, such as recycling and composting, to reduce the amount of waste sent to landfills.

**Energy Conservation:** A Green University should prioritize energy conservation practices, such as energy-efficient lighting and appliances, to reduce energy consumption on campus.

**Transportation:** A Green University should prioritize sustainable transportation practices, such as biking, walking, and public transit, to reduce the carbon footprint of transport on campus.

**Land Use:** A Green University should prioritize sustainable land use practices, such as preserving green space and wildlife habitat, to promote biodiversity and ecosystem health.

**Procurement:** A Green University should prioritize sustainable procurement practices, such as purchasing products from sustainable materials and minimizing packaging waste.

**Education and Outreach:** A Green University should prioritize education and outreach efforts to promote sustainable resource utilization among its students, faculty, and staff.

Sustainable resource utilization in a Green University should prioritize water conservation, materials management, energy conservation, sustainable transportation, land use, procurement, and education and outreach. A Green University can promote a more sustainable future by implementing these practices.









Waste segregation in a university separates different types of waste materials for proper disposal or recycling. Proper waste segregation is crucial for managing waste effectively and reducing waste in landfills.

Waste segregation guidelines for a university:

**Education and Training:** Proper education and training on waste segregation should be provided to all members of the university community, including students, faculty, and staff. This includes information on what types of waste can be segregated, how to segregate waste properly, and the importance of waste segregation for sustainability.

**Bin Placement:** Adequate waste bins should be placed throughout the university, with clear signage indicating which types of waste should be placed in each bin. Color coding can also be used to help with waste segregation. For example, blue bins can be used for paper and cardboard, green bins for organic waste, and yellow bins for plastic and metal.

**Collection and Transport:** Proper collection and transport of segregated waste materials is important to ensure they are properly disposed of or recycled. Separate collection vehicles can be used for each type of waste material to ensure that they are not mixed together during transport.

**Recycling Infrastructure:** The university should have adequate recycling infrastructure to recycle segregated waste materials properly. This includes recycling facilities for paper, plastic, metal, and other recyclable materials.

By implementing waste segregation in a university, the campus can significantly reduce the amount of waste in landfills, promote sustainability, and save resources by recycling materials that would otherwise be discarded.



At SRMPAC Campus, an efficient waste segregation mechanism is firmly established.

Waste originating from diverse sources and activities undergoes meticulous segregation, ensuring safe disposal and forwarding to recycling and composting sites or authorized recyclers. This process effectively diverts waste from landfills.











Organic waste management in a university involves properly handling, treating, and disposing of food waste and other organic materials generated on campus. Organic waste management tips for the university:

**Source Separation:** One of the critical components of organic waste management is source separation. This involves separating food waste and other organic materials from waste streams such as paper, plastics, and metals. The university should provide separate bins for organic waste in high-traffic areas such as dining halls and kitchens.

**Composting:** Composting is a natural process where microorganisms break down organic materials to create nutrient-rich soil. Composting can be a cost-effective and sustainable way to manage organic waste on campus. The university can establish on-site composting facilities or work with local composting facilities to process organic waste.

**Anaerobic Digestion:** Anaerobic digestion is another method for managing organic waste that involves using microorganisms without oxygen to break down organic material. This process can produce biogas, which can be used to generate energy.

**Education and Outreach:** Proper education and outreach are crucial to the success of organic waste management programs in universities. The university should provide information on the importance of organic waste management, how to correctly separate organic waste, and how to participate in composting programs.

By implementing organic waste management in a university, the campus can significantly reduce the amount of organic waste in landfills, promote sustainability, and create valuable resources such as compost and biogas.









Organic Waste Management

# 1 2 3 4 5 6 7 8 9 10

As part of SRMPAC's commitment to "reduce, reuse, recycle," all organic waste is directed to multiple composting and vermicomposting facilities.

These processes transform waste into valuable resources, mitigating the need for landfill disposal and promoting sustainable waste management practices.









**3. Greening Education Policy** 

A greening education policy can provide a roadmap for universities to reduce their environmental impact and promote sustainability on campus while also creating a culture of environmental stewardship among students, faculty, staff, and other stakeholders. A "Greening Education" policy for a university may include the following elements:

**Curriculum Integration:** The policy should promote the integration of sustainability principles and practices into all aspects of the university's academic programs, including general education requirements, majors, and graduate programs.

**Professional Development:** The policy should provide opportunities for faculty and staff to learn about sustainability principles and practices and how to integrate them into their teaching, research, and operations.

**Campus Operations:** The policy should encourage the university to adopt sustainable practices, such as green building design and construction, energy and water conservation, waste reduction and recycling, sustainable transportation, and the use of renewable energy sources.

**Research and Scholarship:** The policy should encourage and support research and scholarship that advances sustainability science and addresses pressing environmental, social, and economic challenges.

**Community Engagement:** The policy should encourage the university to engage with its local and global communities to promote sustainability, such as through outreach and education programs, community gardens, and sustainability-focused events and initiatives.

**Partnerships and Collaboration:** The policy should encourage partnerships and collaboration with other universities, government agencies, and private sector organizations to advance sustainability efforts and share best practices.

**Monitoring and Reporting:** The policy should establish a system for monitoring and reporting on the university's progress in achieving its sustainability goals and regularly reporting on its performance to stakeholders.

A greening education policy can provide a framework for universities to integrate sustainability principles and practices into all aspects of their operations, research, and education, promoting environmental stewardship, social responsibility, and economic viability for future generations.







Greening Education Policy

# 1 2 3 4 5 6 7 8 9 10

SRMPAC's Green Policy is designed to instill a sense of environmental responsibility among its faculty, staff, and students, emphasizing the importance of preserving nature and natural resources. The policy outlines specific guidelines and initiatives to promote sustainability and reduce the institution's ecological footprint.

#### **These initiatives include**

- 1. Environmental Education: Integrating environmental education into the curriculum to raise awareness about environmental issues and promote sustainable practices among students.
- 2. Waste Management: Implement waste segregation and recycling programs to minimize waste generation and divert organic waste towards composting and vermicomposting facilities.
- 3. Energy Conservation: Adopting energy-efficient practices and technologies to reduce energy consumption, such as sub-metering and aspirate metering to monitor energy use, installing solar power plants for renewable energy, and encouraging energy-saving behaviors among the campus community.
- 4. Water Management: Implementation of water conservation measures, such as rainwater harvesting systems, gray water reuse for flushing toilets and irrigation, and responsible use of freshwater resources.
- 5. Biodiversity Conservation: Promoting biodiversity conservation through sustainable landscaping practices, green space preservation, and planting drought-tolerant species to minimize water consumption.
- 6. Green Building Practices: Incorporation of green building principles in campus construction and renovation projects to enhance energy efficiency, water conservation, and indoor environmental quality.
- 7. Continuous Improvement: Commitment to constantly monitoring, evaluating, and improving green initiatives to ensure effective implementation and alignment with environmental goals.

Overall, SRMPAC's Green Policy is a guiding framework for fostering a culture of environmental stewardship and sustainability within the institution, empowering its community to contribute positively to preserving the environment for future generations.









4. Salvaged Materials

The use of salvaged materials in universities can contribute to sustainable and environmentally responsible construction practices. Salvaged materials are typically reclaimed or reused from existing structures or buildings rather than being newly produced and can include items such as reclaimed wood, repurposed metal, or refurbished fixtures.

Incorporating salvaged materials into university construction projects can offer several benefits, including reducing the demand for new materials and the associated energy and resources required for their production. It can also reduce the amount of waste sent to landfills and provide unique and characterful design elements that contribute to a sense of history and place.

However, when incorporating salvaged materials into university projects, it is important to ensure that they are of high quality and suitable for their intended use. It is also important to work with experienced professionals who are knowledgeable about salvaged materials and their appropriate applications. Additionally, proper documentation and tracking of salvaged materials can help ensure that they are sourced ethically and that their environmental benefits are accurately accounted for. Overall, the use of salvaged materials in universities can help to promote sustainable and environmentally responsible construction practices.









Salvaged Materials



SRMPAC's approach to sustainability involves creatively repurposing salvaged materials, such as wood, metal, or plastic, to construct new furniture and fixtures for various facilities on campus.

Rather than relying solely on newly manufactured materials, which can contribute to environmental depletion and waste, SRMPAC seeks out discarded or unused materials that can be refurbished and transformed into functional items.

This practice reduces the demand for new resources and minimizes waste by giving new life to materials that would otherwise end up in landfills or incinerators. By adopting this strategy, SRMPAC promotes environmental responsibility and demonstrates a commitment to sustainable practices in its operations.











The use of eco-friendly wood-based materials in university construction can contribute to sustainable and environmentally responsible building practices.

Eco-friendly wood-based materials are typically made from sustainably sourced or recycled wood and often have a reduced environmental impact compared to traditional wood-based materials.

Examples of eco-friendly wood-based materials include bamboo, which is a rapidly renewable resource that can be used for flooring, furniture, and other applications.

Another example is reclaimed wood, which is salvaged from old buildings or structures and repurposed for use in new construction projects. Additionally, there are composite wood materials made from recycled wood fibers and plastics, which can be used for decking, cladding, and other applications.

Using eco-friendly wood-based materials in university construction can offer several benefits, including reducing the demand for new wood and the associated energy and resources required for their production. It can also reduce the amount of waste sent to landfills and promote sustainable forestry practices that protect the environment.

However, it is important to ensure that eco-friendly wood-based materials are of high quality and suitable for their intended use. It is also important to work with experienced professionals who are knowledgeable about eco-friendly materials and their appropriate applications.

Overall, the use of eco-friendly wood-based materials in universities can help to promote sustainable and environmentally responsible building practices while also creating a healthy and inspiring learning environment for students and staff.









**Eco-friendly Wood Based Materials** 

### 1 2 3 4 5 6 7 8 9 1

SRMPAC advocates using Certified Composite Wood as part of its commitment to promoting eco-friendly wood materials.

By opting for certified composite wood, the college aims to contribute to conserving forest resources and decreasing reliance on virgin materials.

This approach aligns with SRMPAC's dedication to sustainable practices and environmental stewardship, ensuring that the college's procurement and construction activities prioritize materials that have been responsibly sourced and manufactured.











#### 6. Materials with Recycled Content

The use of materials with recycled content is an important aspect of sustainability in university buildings. This includes materials such as recycled steel, glass, plastic, and concrete.

By using these materials, the demand for virgin materials is reduced, which helps to conserve natural resources and energy. In addition, using recycled materials can help to reduce the amount of waste that ends up in landfills.

There are several ways that universities can incorporate materials with recycled content into their buildings. One way is to specify these materials in construction contracts and to work with contractors and suppliers to ensure that they are used. Another way is to require that a certain percentage of materials used in construction and renovation projects are made from recycled content.

It's also important to note that not all materials with recycled content are created equal. The quality and environmental benefits of recycled materials can vary depending on factors such as the manufacturing process, the source of the recycled content, and the end-of-life disposal options for the material.

Therefore, it's important to carefully evaluate the environmental impact of different materials before selecting them for use in university buildings.









**Materials with Recycled Content** 

10 8 9 SRMPAC prioritizes the use of materials with recycled content in its construction and renovation endeavors. Here's an expanded explanation 1. Recycled Concrete: Instead of relying solely on newly mined aggregates, SRMPAC incorporates recycled concrete aggregates from demolished structures or construction waste. These recycled aggregates can help reduce the demand for virgin aggregates, thereby conserving natural resources and minimizing energy consumption associated with aggregate extraction and processing. 2. Recycled Bricks: SRMPAC utilizes bricks made from recycled materials or reclaimed bricks salvaged from demolished buildings. By using recycled bricks, the college reduces the need for new clay extraction and brick manufacturing, which can have significant environmental impacts such as habitat disruption and energy consumption. **3.** Fly Ash Bricks: Fly ash, a byproduct of coal combustion in power plants, is often incorporated into bricks as a supplementary cementitious material. Using fly ash bricks, SRMPAC reduces the environmental burden of fly ash disposal while decreasing the demand for traditional clay bricks, which require extensive kiln firing energy. 4. Aluminum Windows: Aluminum windows made from recycled aluminum offer several environmental benefits. Recycling aluminum requires significantly less energy than primary aluminum production from bauxite ore. By choosing aluminum windows with recycled content, SRMPAC contributes to energy savings and reduces greenhouse gas emissions associated with aluminum smelting. 5. **Recycled Glass & Tiles:** SRMPAC incorporates recycled glass and tiles into its construction projects. Recycled glass can be used as concrete aggregates or raw materials for manufacturing tiles and countertops. Similarly, recycled tiles are made from reclaimed ceramic materials, reducing the demand for new tile production and conserving resources. Overall, SRMPAC's commitment to using recycled content materials in construction and renovation demonstrates its dedication to sustainable practices and environmental responsibility. By opting for recycled materials, the college contributes to resource conservation, energy

savings, and waste reduction, aligning with its green initiatives and fostering a culture of

sustainability within the campus community.









Using local materials in the construction and operation of universities can have several benefits, such as reducing transportation costs, supporting local economies, and promoting sustainable development. Some ways universities can use local materials include:

Using locally sourced construction materials such as stone, timber, and clay for building construction.

Using locally sourced materials for furniture, such as chairs, tables, and cabinets.

Using local plants and landscaping materials for creating green spaces.

Using locally sourced materials for equipment, such as computers and office supplies.

By using local materials, universities can reduce their carbon footprint and promote sustainability in their communities. Additionally, it can also help to create a sense of identity and community by reflecting local culture and heritage in the design and construction of the university.







Local Materials



1 2 3 4 5 6 7 8 9 10

Sourcing building materials locally means obtaining materials from nearby suppliers or manufacturers rather than from distant locations. This approach has several environmental and economic benefits:

- 1. Reduced carbon emissions: Transportation of materials over long distances contributes to carbon emissions, primarily from vehicles used for shipping. By sourcing materials locally, the college reduces the carbon footprint associated with transportation, helping to mitigate climate change.
- 2. Energy conservation: Transporting materials over long distances also consumes significant amounts of energy, primarily fuel for vehicles. SRMPAC conserves energy and reduces its overall environmental impact by minimizing transportation distances.
- 3. Support for the local economy: Purchasing materials from local suppliers and manufacturers supports local businesses and stimulates the regional economy. This practice helps create jobs, fosters economic growth, and strengthens community ties.
- 4. Resilience and sustainability: Depending on local resources promotes resilience and sustainability by reducing reliance on external supply chains. In the event of disruptions or shortages in distant supply chains, having local sources ensures the continuity of construction projects and operations.

Overall, prioritizing using locally sourced building materials aligns with SRMPAC's commitment to environmental sustainability, community engagement, and responsible resource management.







### SUSTAINABILITY EVALUATION CHART



### **Certification Level**

Rejection	Certification	Silver	Gold	Platinum
000-100 Points	100-200 Points	200-300 Points	300-400 Points	400-500 Points



Economic and Social Council of United Nations from 2021

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