



JSS Academy of Higher Education & Research
(Deemed to be University) (Accredited A+ Grade by NAAC)

COMPENDIUM ON SDG-15

LIFE ON LAND

**Compendium of Activities in Achieving UN
Sustainable Development Goals**



2024-25

Institutional Biosafety Committee (IBSC)

In accordance with the Rules for the use and storage of hazardous microorganisms/ genetically engineered organism/plants/cells, Government of India, Under the Environment Protection Act, 1986, has enforced rules and regulations on the biosafety and biocontainment of hazardous, recombinant DNA, synthetic nucleic acids and use of hazardous biomaterials of any kind. Under the guidelines of this act, JSS Academy of Higher Education & Research, Mysuru, has constituted - Institutional Biosafety Committee (IBSC) as per DBT, Government of India guidelines.

Mission

The primary mission of the IBSC is to ensure the safety of faculty, and the researchers involved in the biological research at our institute and to protect the general public and the environment from adverse consequences of the proposed research.

Purpose of IBSC

The IBSC is responsible for reviewing projects that involve, but are not limited to, recombinant DNA, RNAi, pathogens, human materials (specimen's repositories) and other potentially infectious material, as well as transgenic animals, genetically modified plants and seeds, CRISPER and Gene knockouts, bacterial and viral vectors based transfections. The IBSC provides recommendations in matters pertaining to the control of biohazards associated with the use of microbiological agents and their vectors and related research.

The IBSC will determine approval or recommendations of the proposed experiments through review of the application submitted by the principal investigator along with supporting materials. This review and oversight involves independent assessment of the biosafety containment level proposed for the work and through coordination with the biological safety officer, assessment of facilities, procedures, practices, training and expertise of personnel involved in the research.

Specifically, the IBSC will review research proposals with the following potentially hazardous biological agents and experiments

Infrastructure

Centre For Experimental Pharmacology and Toxicology JSS Academy of Higher Education & Research (JSS AHER) has endowed an extensive ABSL2 preclinical facility “Centre for Experimental Pharmacology and Toxicology” to support the comprehensive research activities of its constituent colleges (medical, dental, pharmacy, life sciences) and departments. The facility is licensed (261/PO/ReBi/S/2000/CPCSEA) by Committee for the Purpose of Control and Supervision of Experiments on Animals (CPCSEA), Government of India, to conduct experiment on small animal models and breeding for in-house use. The vivarium is located in a serene and peaceful ambiance within the University campus. A built space of 7000 sq ft primarily constitutes rodent barrier facility, small animal clinicopathology labs and supportive suites. Animal facility plant is built in compliance with guidelines of National Institutes of Health (NIH), USA and CPCSEA, Government of India

Physical Plant

- PT is a BSLII barrier facility with dual corridors, temperature, humidity, light, noise and differential air pressure monitored 24X7
- Epoxy terrazzo coated floor, concrete masonry walls, and moisture resistant ceilings
- Facility is provisioned with isolated ventilated cages
- Clinicopathology, test item control office, archive on site

Animal care is monitored on a daily basis including weekends and holidays

- Health monitoring within the animal facilities is ensured through a sentinel program, supplier reports, and environmental testing by trained veterinarians
- Sterilised Bedding, food and portable mineral water
- Consistent healthcare from study initiation to study completion
- Practice in force on humane endpoints policy to minimize pain and discomfort

Experience with and equipped to conduct studies in a wide array of species

- Rat
- Mouse
- Rabbit
- Guinea Pig

Scientific services- With cutting edge technologies in scientific research along with wide range of experienced professionals, CPT alliances with its partners to bring forth endless variety of disease models and preclinical services in the following areas- Pharmaceuticals, Medical devices, Agrochemicals and Pesticides, Food products and Nutraceuticals, Folklore Remedies

Collaborations

International

- NIAAA, NIH, USA
- Macquarie University, Australia
- Sultan Qaboos University, Oman
- University of Saskatchewan, Canada
- Seton Hall University, USA
- University of Johannesburg

National

- CSIR Central Food Technological Research Institute, Mysuru
- CSIRIITR, Lucknow
- IIT, Madras
- Department of Chemistry, University of Delhi
- National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore
- Birla Institute of Technology and Science, Hyderabad
- Annamalai University, Tamil Nadu

Animal House facilities



Biochemistry lab



PPE changing rooms



Air shower entry



Rodent room



Clean corridor



Cages autoclave



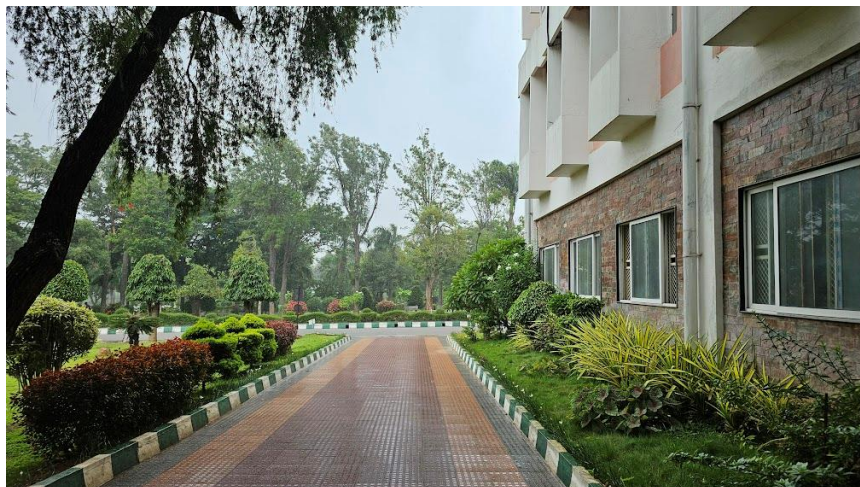
IVC cage



Stereotaxic apparatus



Plants in the campus







Related Publications

1. Vidhyalakshmi R, Prabhasankar P, Muthukumar SP, Prathima C, Meera MS. The impact of addition of pearl millet starch-germ complex in white bread on nutritional, textural, structural, and glycaemic response: Single blinded randomized controlled trial in healthy and pre-diabetic participants. *Food Res Int.* 2024 May;183:114186. doi: 10.1016/j.foodres.2024.114186. Epub 2024 Mar 1. PMID: 38760125.
2. Karthikeya Patil ,Sanjay Chikkarasinakere Jogigowda,, Mahima V.Guledgud, Varusha Sharon Christopher, Vidya Gowdappa Doddawad, Pushpa Vittalanaahalli Hutchappa. Efficacy of chitosan mouthwash for oral mucositis: A promising therapeutic approach for head and neck cancer patients following radiotherapy. *Volume 25, Issue 3, June 2024, Pages 160-167*
3. Chandana Kumari VB, Sujay S.Huligere, Mohammad Z.Ahmed, Jayanthi M K, Ramith Ramu. Fermented *Ananas comosus* and *Carica papaya* harbour putative probiotic *Limosi lactobacillus fermentum* and *Lacticaseibacillus paracasei* strains with inhibitory activity against α -glucosidase and α -amylase. *Volume 172*, September 2024, Pages 348-360
4. Simha N A, Patil SM, M K J, N C, Wong LS, Kijssomporn J, Raj R, Ramu R. From sugar binders to diabetes fighters: the lectin saga of antihyperglycemic activity through systematic review and meta-analysis. *Front Pharmacol.* 2024 Sep 11;15:1382876. doi: 10.3389/fphar.2024.1382876. PMID: 39323638
5. Patil, Shashank & Gangadhar, Manu & C M, Ramya & S., Rajashekara & Desai, Sudhanva & Parameswaran, Saravanan & Ramu, Ramith. (2025). Exploring jackfruit flour polyphenols as promising SGLT-2 inhibitors for hyperglycemia management. *International Journal of Applied Pharmaceutics.* 199-208. 10.22159/ijap.2025v17i1.52573.
6. Dr Pushpa V H, Dr Jayanthi M K, N Akshaya Simha, Siva Dallavalasa, Dr Sapna Patel M C, Dr Ramith Ramu, Subba Rao V Madhunapantula, Shivagutika Dichloromethane extract: An Indian polyherbal drug against breast cancer -In vivo and in silico insights from an EAC solid Tumor model, *Frontiers in Pharmacology*, 2024 Jul;15:1418231-1418231.
7. Mohammad Z Ahmed, Chandana Kumari V B, Sujay S Huligere, Dr Jayanthi M K, Dr Ramith Ramu, Fermented *Ananas comosus* and *Carica papaya* harbor putative probiotic *Limosilactobacillus fermentum* and *Lacticaseibacillus paracasei* strains with inhibitory activity against α -glucosidase and α -amylase, *South African Journal of Botany*, 2024 Sep;172:348-360.
8. Simuzar S Mammadova, Himansu Baijnath, Antonia Neidilê Ribeiro Munhoz, Gholamreza Abdi, Ravindra B Malabadi, Kiran P Kolkar, Raju K Chalannavar, Sadiya Mr, Tea(*Camellia sinensis*) leaves accumulate higher levels of Aluminum: Potential Health Risk- Alzheimer's disease(AD): An updated review of evidence, *GSC Advanced Research and Reviews*, 2024 Jul;20(1):313-337.
9. Sham Kishore K, Dr Smitha Rani, Dr Gurupadayya Bm, Dr Balaraj B M, Estimation Of Dimethoate Residue On The Surface Of Mangoes, *Journal of Forensic Medicine and Toxicology*, 2024 Aug;41(1):22-25.
10. Nitin Bhagat, Sajjad Salam, Abhinav Garg, Vijayanandhan Venkatesan, Shetty Hardik, Gaganashree H G, Sumana Kumar, Ritik Kashwani, Use of Liposomal Curcumin for Oral Cancer Treatment: A Systematic Review and Meta Analysis, *Nanotechnology Perceptions*, 2024 Aug;20(S6):342-359.
11. H K Ranjini, K Manju, Baker Syed, Raj S Niranjana, Akhila, Prasad M N Nagendra, K P Kripali, Apeksha V, Vinayak Hegde Shreya, H Shayista, P Ashwini, Plant-endosymbiont mediated synthesis of silver nanobactericides with bioautography-guided partial purification of novel 1,2-benzenedicarboxylic acid, decyl octyl ester, *Plant Nano Biology*, 2024 Aug;9:100089.
12. Kathyayani D, Alina Sionkowska, Dr Manjula Santhepete, Dr Veeranna S, Mahesh B, Channe Gowda D, Silvia Vicini, Insights into the Physicochemical Characteristics and Miscibility of Chitosan/Polypeptide Blends: Promising Material for Wound Healing in Sprague-Dawley Rats, *ACS Biomaterial Science and Engineering*, 2024 Sep;10(9):5807-5821.
13. Kiran P Kolkar, Ravindra B Malabadi, Raju K Chalannavar, Sadiya Mr, Updates on some medicinal and ornamental plants- Ayurvedic medicines, *World Journal of Advanced Research and Reviews*, 2024 Jul;23(1):111-147.
14. Sujay S Huligere, Chandana Kumari V B, Shashank M Patil, Jayanthi M K, Ling Shing Wong, Jureerat Kijssomporn, Jameel H Al-Tamimi, Ramith Ramu, Sauerkraut-derived LAB strains as potential probiotic candidates for modulating carbohydrate digestion attributing bacterial organic acid profiling to antidiabetic activity, *Food Science and Nutrition*, 2024 Oct;12(11):9682-9701.
15. Premalatha B R, Suman Basavaraju, Subbarao V Madhunapantula, Hemanth Kumar S, Veena H R, Usha Hegde, Therapeutic Potential of Luteolin in Periodontal Therapy- A Scoping Review Protocol, *Biomedical and Pharmacology Journal*, 2024 Oct;17(4).

16. Narayanasamy Nivetha, Jevid Don Hamid, Akshaya Simha N, Devananda Devegowda, Ramith Ramu, Sivan Velmathi, Nivetha N, Don Hamid J, Simha N A, Devananda Devegowda, Ramith Ramu, Velmathi S, Natural product-inspired [3 + 2] cycloaddition-based spirooxindoles as dual anticancer agents: synthesis, characterization, and biological evaluation by in vitro and in silico methods, RSC Medicinal Chemistry, 2024 Oct.
17. Bharadwaj S A, Joseph J, Megha; Suvarna D, Srinivas A N, Suresh D, Gunaseelan B, Chidambaram S B, Duseja A, Kumar D P, Molecular Insights into the Therapeutic Potential of Green Jackfruit Flour in Experimental MASH and MASH-HCC, Journal of Clinical and Experimental Hepatology, 2024 Aug;14.
18. Saurish Hegde, Jay Gohri, Praveen Kulkarni, R Pragadesh , Aisha Siddiqua, Shreyaswini Kashyap, Sahana K S, David Ninan Kurien, Effectiveness of introducing fresh fruits in Anganwadi menu among children between 3–6 years in Mysuru city, Journal of Family Medicine and Primary Care, 2024 Nov;13(11):4926-4930.
19. Nagma Firdose, Bhavya Somaplara Gangadharappa, Ramith Ramu, Navya Sreepathi, Deepthi Puttegowda, V B Chandana Kumari, GABA as a Signaling Molecule in Plants, GABA in Plants: Biosynthesis, Plant Development, and Food Security, 2025 Jan;65-96.
20. Gubbi Vani Ishika, Deepthi Puttegowda, Ranjith Raj, Manjunath Dammalli, Ramith Ramu, Discovery and Background of GABA in Plants, GABA in Plants: Biosynthesis, Plant Development, and Food Security, 2025 Jan;1-18.
21. Lakshmi Jayaram, Deepthi Puttegowda, Pushpa V H, Shashank M Patil, Ramith Ramu, GABA and Plant-Derived Therapeutics, GABA in Plants: Biosynthesis, Plant Development, and Food Security, 2025 Jan;321-341.
22. Mrudula M Mohanan, Radhakrishna Shetty, Prerana S Bhat, Vidyaranya S Deepashree, Rajesh Kumar Thimulappa, Claus Heiner Bang-Berthelsen, Kiran Kumar Mudnakudu Nagaraju, Isolation and characterization of biological traits of millet-derived lactic acid bacteria, International Journal of Food Science and Technology, 2025 Mar.
23. Diwakar Suresh, Bharathwaj Gunaseelan, Akshatha N Srinivas, Amith Bharadwaj, James Joseph, Megha, Thomas Varughese, Suchitha Satish, Deepak Suvarna, Prasanna K Santhekadur, Saravana Babu Chidambaram, Ajay Duseja, Divya P Kumar, Green jackfruit flour ameliorates MASH and development of HCC via the AMPK and MAPK signaling pathways in experimental model systems, Scientific Reports, 2025 Apr;15(1)

Related Projects

1. Phytoremediation of indoor air pollution in urban homes to improve air quality using innovative-sustainable technology based-plant wall air filtration system-ICMR Project. (Grant value- Rs 40,31,649) -Dr. Rajesh Kumar, Biochemistry department
2. Development of Millet based dietary fiber for protection of allergic asthma by modulating gut microbiome derived short chain fatty acids (ICMR Project-Grant value- 40,00,000)-Dr. Kiran, School of Life sciences

JSSDCH

Sustainable Development Goal 15 strives to ensure the protection, restoration, and sustainable utilization of terrestrial ecosystems, including the responsible management of forests, the fight against desertification, the reversal of land degradation, and the preservation of biodiversity. Preserving the variety of life on land necessitates targeted endeavors to conserve, restore, and sustainably utilize terrestrial and other ecosystems. Goal 15 focuses on sustainable forest management, land restoration, desertification control, the reduction of degraded habitats, and the cessation of biodiversity loss. Collectively, these efforts aim to secure the long-term benefits of land-based ecosystems, including sustainable livelihoods, for future generations.

The nine outcome targets include conserving and restoring terrestrial and freshwater ecosystems, ending deforestation and restoring degraded forests, combatting desertification and restoring degraded land, ensuring the conservation of mountain ecosystems, protecting biodiversity and natural habitats, safeguarding access to genetic resources and ensuring fair sharing of benefits, eliminating poaching and trafficking of protected species, preventing the invasion of alien species in terrestrial and aquatic ecosystems, and integrating ecosystem and biodiversity considerations in governmental planning.

The three means of achieving targets involve increasing financial resources for the conservation and sustainable use of ecosystems and biodiversity, providing financial incentives for sustainable forest management, and combating global poaching and trafficking.

Human beings rely on the Earth and the oceans for their existence. This goal aims to establish sustainable livelihoods that can be enjoyed by future generations. Plant life, which constitutes 80% of the human diet, is a crucial economic resource through agriculture. Forests, covering 30% of the Earth's surface, provide essential habitats for countless species, offer clean air and water, and play a critical role in combating climate change. Terrestrial ecosystems provide various goods, such as raw materials for construction and energy, as well as ecosystem services like carbon capture, soil quality maintenance, habitat provision for biodiversity, water quality regulation, water flow regulation, and erosion control, which reduce the risks of natural disasters and help regulate climate while sustaining agricultural productivity. Preserving these ecosystems significantly supports efforts in climate change mitigation and adaptation. Protecting our land resources must be a top priority to facilitate the transition towards a more sustainable society. It is crucial to adopt an inclusive approach that promotes the conservation and sustainable utilization of biodiversity across different sectors such as agriculture, forestry, fisheries, and tourism. These sectors are interconnected with food security, economic growth, human health, improvements in living conditions, and the enjoyment of a healthy environment. Therefore, the preservation of biodiversity enhances the provision of these vital services.

Land and forests form the bedrock of sustainable development. Forests play a vital role in addressing climate change, safeguarding biodiversity, ensuring food security, and serving as habitats for indigenous communities. These natural reserves are home to over 80% of terrestrial animal, plant, and insect species. Furthermore, approximately 1.6 billion people, including 70 million indigenous individuals, rely on forests for their livelihoods.

Our existence and well-being depend on both land and sea. Plants, which constitute 80% of the human diet, and agriculture, as a significant economic resource, are essential for our sustenance. Forests, covering 30% of the Earth's surface, serve as crucial habitats for millions of species, purvey clean air and water, and play a pivotal role in combatting climate change. Despite the protection of 15% of land, biodiversity remains under threat. Illegal trade has endangered nearly 7,000 species of plants and animals. Wildlife trafficking not only depletes biodiversity but also fosters insecurity, fuels conflicts, and nurtures corruption.

Urgent measures are required to curtail the loss of natural habitats and biodiversity, which are part of our shared heritage and contribute to global food and water security, climate change mitigation and adaptation, as well as peace and security. Hence, Goal-15 aims to safeguard, restore, and promote sustainable utilization of terrestrial ecosystems, ensure the sustainable management of forests, combat desertification, reverse land degradation, and halt the loss of biodiversity. These efforts are instrumental in fostering the flourishing of life on Earth.

Green campus initiatives

The Institution also has included a subject Environmental Sciences in all courses as stipulated by UGC and organizes Environment Day and Water Day. The Institution believes in preserving traditional medicine and has established medicinal plants garden and promotes eco-friendly cultivation practices by organizing medicinal plants exhibition in JSS Urban Health Centre. To meet the needs and sustainable management of fresh water, the rainwater harvesting, and utilization systems have been established in all the campuses of the university to aid towards the greater objectives of water management and conservation and increasing recharge of groundwater by capturing and storing rainwater, rainwater harvesting from rooftop run-offs and natural water bodies and the community development. The below mentioned models are established in the various buildings based on the size of the building and the extent and topography of the land. • Simple roof water collection systems - Most of the rooftop rainwater harvesting has been completed by constructing five water storage structures with a storage capacity of 1000 m³. • Land surface catchments – a simple way of collecting rainwater by retaining the flows (including flood flows) of small creeks and streams in small storage reservoirs (on surface or underground) created by low-cost dams • Collection of storm water – The surface runoff collected in storm water ponds/ reservoirs is subject to a wide variety of contaminants and every effort is made to keep these catchments clean.

- Rain water harvesting and retention facility in the campus
- Collection of storm water and every effort is made to keep these catchments clean.
- Save water reminders

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Biochemistry lab



PPE changing rooms



Rodent room



Clean corridor



Cage autoclave



IVC cage

Greenery in campus



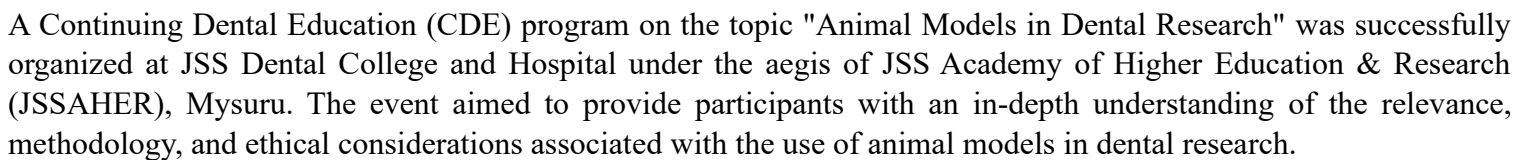
Smart Campus Initiatives:

- Replacement of 50% of regular bulbs with LED bulbs
- Landscaping around the college
- Providing water purifiers in every floor of the institution
- Initiation of G health Digital store software
- Installation of two effluent treatment plants
- Software for patient management and payment

Publications in alignment with Goal 15

1. Thippeswamy H M, Raghavendra Shanbhog, Nanditha Kumar M, S N Prashanth & P Smitha - Comparison of serum calcium, magnesium, phosphate, alkaline phosphatase, and vitamin D levels in children consuming reverse osmosis, non reverse osmosis, and high fluoride drinking water - Scientific reports - Mar 2025; 15(10689):1-8 ISSN: 2045-2322, International. **In Alignment with Goal 15.**
2. Sushma Rudraswamy, Nagabhushana Doggalli, Sowmya Srinivas, Sreeshyla Huchanahalli Sheshanna, Aishwarya Chandran K V - Concerns, Issues, Challenges in Liquid Biomedical Waste Management - Southeastern European Journal of Public Health - Dec 2024; XXV S2: 1667-1678 ISSN: 2197-5248, International. **In Alignment with Goal 15.**
3. Chandrashekar B R, Nishath Khanum, Praveen Kulkarni, Madhu Basavegowda, Kishor M, Suma S - E-learning module on tobacco counselling for students of medicine and dentistry in India: a needs analysis using mixed - methods research - BMJ Public Health - Dec 2024; 2: e001031: 1- ISSN: 2753-4294, International. **In Alignment with Goal 15.**
4. Koduru Sravani, Ashwin Prabhu, Pallavi Nanaiah, Archana R Naik, Anupama Aradya, Pradeep Chandra K - Animal models in Periodontal research: Insights into disease pathogenesis and therapeutic strategies - RGUHS Journal of Dental Sciences - Jun 2025; 17(2):1-6 ISSN: 0976-9439, National. **In Alignment with Goal 15.**
5. Harshitha Kurbur Parashivamurthy, Shiva Siddappa, Pavan Kumar Subbanakodige Venkatakrishna, U K Ambikathanaya, Radhakrishna Shetty - Synergistic effects of vitamin C mitigates sodium fluoride-induced dental fluorosis and allergic immune responses in mice - Food and Chemical Toxicology - Dec 2024; ISSN: 0278-6915, International. **In Alignment with Goal 15.**

Fire Safety Training



The inaugural program commenced with a warm welcome address followed by an invocation and lighting of the lamp. Dr Dhakshaini, Principal of JSS Dental College & Hospital spoke a few words on the relevance of animal models in research especially in higher education institutions. The inaugural program concluded with a vote of thanks by Dr.Vidya G Doddawad, HOD, Department of Oral Pathology & Microbiology.

The speakers were Dr. Saravana Babu, Professor, Department of Pharmacology, JSS College of Pharmacy and Director, Center for Experimental Pharmacology & Toxicology, JSS Academy of Higher Education & Research, Mysuru and Dr. K. L. Krishna, Associate Professor and Head of Department, Department of Pharmacology, JSS College of Pharmacy, JSS Academy of Higher Education & Research, Mysuru

Eco club 2025



Ecoclub-JSSDCH had also organised numerous activities and games for the club members and the winners were rewarded with certificates and saplings. the competitions and the winners' list are as follows:

- 1. Logo Designing Competition:** A logo designing competition for the Eco club was held on 9th April 2024. Many Eco Warriors participated enthusiastically. The competition winner was chosen based on voting by all the club members. Winner: **Varshini Haldhorai**
- 2. Idea Hackathon Competition:** An Idea Hackathon competition was held on 29th April 2024 where club members were asked to give ideas to prevent pollution and safeguard the environment. The winning entries of the competition were judged by **Dr Vidya Priyadarshini**, Reader, Dept of Periodontology, JSSDCH. Winners: **Sagrika Amla and Eshika Anand**
- 3. The Saviours of Environment Game:** An environment game was held on 05th June 2024. Members were asked to click pictures of their contribution to the environment. The winners were chosen based on the points allotment. Winners: **Charumathy Sriram and Sanha M Bellad**



SUSTAINABLE DEVELOPMENT GOAL #15

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

Objectives with regard to achieving SDG-15

1. Alternatives to animal testing
2. Medicinal plants and uses
3. 3R's Principles in research
4. CPCSEA and ICH guidelines for conducting research.
5. Green initiatives to save environment

List of activities planned to achieve the set objectives

1. Conducting awareness programs on green initiatives like rainwater harvesting and use of solar energy
2. Seminar on alternatives to animal experimentation.
3. Reduce and replace usage of plastics
4. Training students in proper waste disposal practices and sensitizing them on using the services of biomedical disposal certified agencies.
5. Encourage students for planting trees and animal adoption.

Poster competition, essay writing competition, role play on World Environment Day celebration

List of activities promoting Life on Land

World Environmental day (5th June 2024)



The National Service Scheme (NSS Unit) JSS College of Pharmacy, Mysuru Organized Plant Saplings on the occasion of World Environmental day (5th June 2024) with the theme of our land, our future. The main aim of this occasion was to prevent & creates awareness on the raised global warming to protect our nature and planet earth. It is a day that reminds everyone on the planet to get involved in environmentally friendly activities. People come together to pledge towards building a greenery planet.

Plant Sapling:



Q: Does your College or University support and/or organize events aimed to promote conservation and sustainable utilization of the land, including forests and wild land?

A: Yes. The National Service Scheme (NSS) team and the Smart Campus Committee actively work to conserve and improve the ecological system, including insects, plants, and trees, through regular sapling plantations and tree mobilization programs. These plants and trees are maintained using in-house manures prepared from green waste, ensuring sustainable upkeep.

Q: Does your College or University have policies to ensure that food on campus is sustainably farmed?

A: While the institution does not operate at the livestock level, the campus garden team cultivates fruit-bearing trees (jackfruit, mango, banana, coconut, tamarind, bael fruit) and vegetable plants (cucumber, ladies' finger, drumstick, etc.) that yield produce seasonally. These are shared with staff, students, and visitors. The institution is currently in the process of developing formal policies to enhance its green initiative in this area.

Q: Does your College or University work directly to maintain and extend existing ecosystems and their biodiversity, especially those under threat?

A: Yes. The Smart Campus Committee has increased the number of trees on campus, which provide shelter to birds, insects, bees, and earthworms. Additionally, the University has eliminated the use of amphibians, rodents, and similar species in undergraduate teaching and demonstration, as part of its commitment to protecting micro and macro-ecological systems.

Q: Does your College or University offer educational programmes on ecosystems (including wild flora and fauna) for local or national communities?

A: Yes. JSSAHER offers a dedicated Master's degree in Environmental Sciences, focusing on areas such as water quality analysis, energy harnessing, air quality, climate change, and green technology, producing skilled professionals for environmental stewardship.

Q: Does your College or University offer educational or outreach programmes on sustainable land management for agriculture and tourism?

A: No.

Q: Does your College or University have a policy to ensure conservation, restoration, and sustainable use of terrestrial ecosystems associated with the institution, in particular forests, mountains, and drylands?

A: The institution is in the process of developing such a policy. In the meantime, it organizes multiple programs promoting conservation, restoration, and sustainable use of terrestrial ecosystems.

Evidence: <https://jssuni.edu.in/jssaher/activities-and-events/ActivityAndEventDetail.aspx?NOTICESID=3110>

Q: Does your College or University have a policy to identify, monitor, and protect any IUCN Red Listed species or national conservation list species within its areas of operation?

A: No formal policy currently exists. However, the campus was developed on residentially approved land, ensuring no displacement of prominent species or habitats. The institution supports the natural ecosystem through initiatives such as green campus development, a herbal garden, a plastic-free campus, and rainwater harvesting.

Q: Does your College or University include local biodiversity considerations in planning and development processes (e.g., new buildings)?

A: Yes. The Smart Campus Committee ensures local biodiversity is incorporated into planning and development.

Q: Does your College or University have a policy to reduce the impact of alien species on campus?

A: No.

Q: Does your College or University collaborate with the local community in efforts to maintain shared land ecosystems?

A: No.

Q: Does your College or University have water quality standards and guidelines for water discharges to protect ecosystems, wildlife, and human health?

A: Yes. An Effluent Treatment Plant (ETP) is under construction to treat waste from chemical and biological laboratories separately before release into municipal drainage. Domestic wastewater will also be treated in the ETP, and the treated water will be reused for gardening, ensuring environmental safety.

Q: Does your College or University have a policy on reducing plastic waste on campus?

A: Yes. The Smart Campus and Herbal Garden Committees have implemented measures to reduce plastic usage, such as:

- Restricting plastic water bottles and files, and promoting paperless communication
 - Minimizing e-waste such as CD-ROMs
 - Using biodegradable plates and cups in events
 - Replacing plastic-wrapped floral bouquets with sapling distributions
 - Distributing jute bags during functions
- The campus aims to become a fully plastic-free zone in a phased manner.

Q: Does your College or University have a policy, process, or practice on hazardous waste disposal?

A: Yes. The institution has a dedicated policy for disposing of hazardous waste, including biowaste, carcinogens, construction materials, and e-waste.

Policy Link: <https://jssuni.edu.in/jssaher/jssaher-infra/biomedical-waste-management/biomedical-waste-management-home.html>



ABOUT SDG 15- LIFE ON LAND

Sustainable Development Goal 15 (SDG 15), also known as "Life on Land," is one of the 17 global goals established by the United Nations in 2015, alongside other vital resources such as water. Its core aim is to protect, restore, and promote the sustainable use of terrestrial ecosystems; sustainably manage forests; combat desertification; halt and reverse land degradation; and stop biodiversity loss. This goal features 12 targets to be met by 2030, with progress tracked through 14 specific indicators.

The nine outcome-focused targets include conserving and restoring terrestrial and freshwater ecosystems, ending deforestation and rehabilitating degraded forests, halting desertification and land degradation, ensuring the protection of mountain ecosystems, safeguarding biodiversity and natural habitats, promoting equitable benefit-sharing from genetic resources, fighting poaching and illegal trafficking of protected species, preventing the spread of invasive alien species in ecosystems, and incorporating ecosystem and biodiversity concerns into government policies. The three implementation targets focus on boosting financial support for ecosystem and biodiversity conservation, encouraging sustainable forest management, and addressing global poaching and trafficking.

By committing to these targets, we can help ensure a sustainable and flourishing terrestrial environment for current and future generations.



OUR INITIATIVES FOR LIFE ON LAND (SDG 15)

The College is actively engaged in preserving and expanding the ecosystems within the Nilgiris Biosphere. The biodiversity of medicinal plants is protected and nurtured within the college grounds. Our campus is rich in greenery, featuring seasonal trees and regularly maintained gardens to ensure a clean and orderly environment. The progress toward achieving the targets of SDG 15 is measured through several indicators:

- Biodiversity conservation efforts
- Environmental education and awareness
- Waste management
- Collaboration with local communities

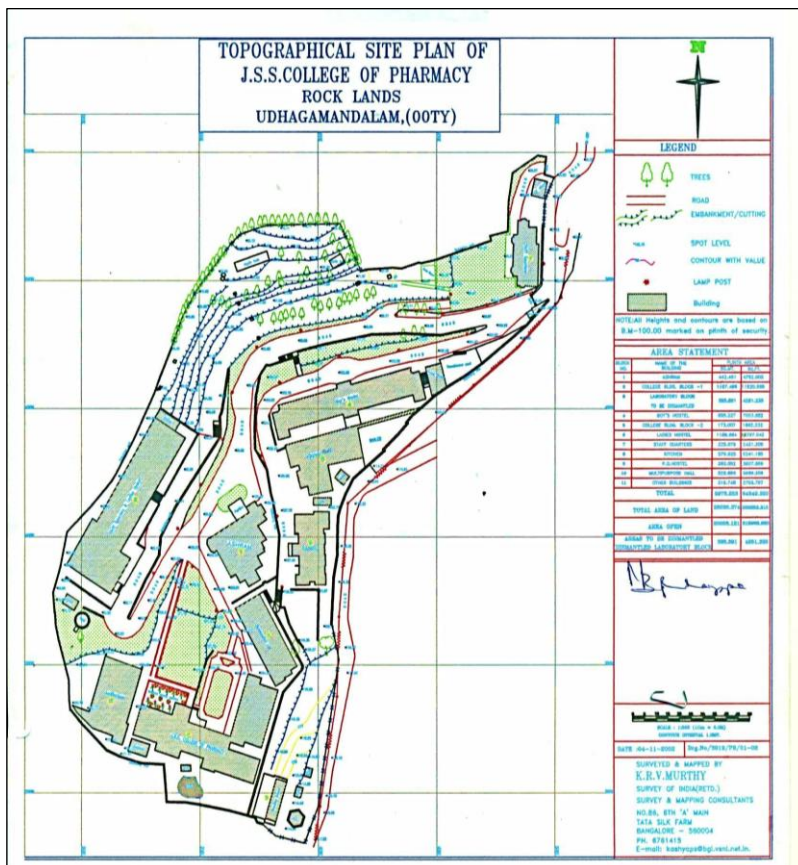
Biodiversity Conservation Efforts

The campus promotes green resilience and operates as a plastic-free environment. Spanning 6.45 acres, the JSS College of Pharmacy, Ooty, has 36,032 square meters covered by buildings. While our infrastructure supports a high standard of academic education within a clean, safe, and comfortable setting, the college has also been proactive since its establishment in developing a state-of-the-art SMART campus.



Green Cover in Campus

SMART CAMPUS COMMITTEE- <https://jssuni.edu.in/jssaher/college-of-pharmacy-ooty/smart-campus.html>



Topographical Map of Green cover in the campus

As per the Policy of Nilgiris District, expansion of Buildings is planned in accordance with Ministry of Forestry and HADP of Nilgiris and prior permission is taken for the same.

The government policy on this is as follows- <https://nilgiris.nic.in/plastic-free-nilgiris/#introduction>

Medicinal Plants and Trees in Campus

In our college, biodiversity conservation efforts are integrated into our practices to raise awareness among students. Green spaces and native medicinal plants are maintained on campus to support local flora and fauna. Sustainable practices are embraced, promoting recycling and responsible waste management. A total of 86 species of trees and plants are on the campus.

No Trees on the campus are cut down and green resilience is promoted by the College Smart Campus committee.

Cultivation of Herbal Plants for Research purposes

The college has herbal garden where many medicinal plants are displayed which provides the fresh air and relieves from the ailments.



Medicinal Plants Garden

 PRINCIPAL J.S.S. COLLEGE OF PHARMACY Rockland's, Ootacamund - 643 001	 B. Shivaramakrishnan Coordinator Smart Campus-JSSCPO	 Dr. B. Babu NSS Program Officer JSS College of Pharmacy Rock lands Udhagamandalam-643001 The Nilgiris
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Environmental Education and Awareness

Raising awareness about the importance of biodiversity, land conservation, and sustainable land use through educational programs and public campaigns mobilizes support for SDG 15. In addition, promoting responsible forest management practices, such as selective logging and reforestation, ensures the continued provision of ecosystem services and economic benefits from forests.

In this regard, we have academic programmes which promotes the conservation of plants and land. At Undergraduate level in B Pharm prescribed by Pharmacy Council of India– Environmental Sciences Subject is taught for conservation of land. Screenshot of it is below and syllabus is attached.

BP 206 T. ENVIRONMENTAL SCIENCES (Theory)	
	30 hours
Scope: Environmental Sciences is the scientific study of the environmental system and the status of its inherent or induced changes on organisms. It includes not only the study of physical and biological characters of the environment but also the social and cultural factors and the impact of man on environment.	
Objectives: Upon completion of the course the student shall be able to:	
1. Create the awareness about environmental problems among learners. 2. Impart basic knowledge about the environment and its allied problems. 3. Develop an attitude of concern for the environment. 4. Motivate learner to participate in environment protection and environment improvement. 5. Acquire skills to help the concerned individuals in identifying and solving environmental problems. 6. Strive to attain harmony with Nature.	
Course content:	
Unit-I	10hours
The Multidisciplinary nature of environmental studies Natural Resources Renewable and non-renewable resources: Natural resources and associated problems a) Forest resources; b) Water resources; c) Mineral resources; d) Food resources; e) Energy resources; f) Land resources: Role of an individual in conservation of natural resources.	
Unit II	10hours
Ecosystems ▪ Concept of an ecosystem. ▪ Structure and function of an ecosystem. ▪ Introduction, types, characteristic features, structure and function of the ecosystems: Forest ecosystem: Grassland ecosystem: Desert ecosystem: Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)	

- More details at Page 71 of the Regulatory body approved syllabus-
https://www.pci.nic.in/pdf/Syllabus_B_Pharm.pdf

The College offers post graduate programme- Masters in Pharmacy - Pharmacognosy aimed at promotion conservation and sustainable utilisation of the land, including forests and wildlife.

- Website of Pharmacognosy Department- <https://jssuni.edu.in/jssaher/college-of-pharmacy-ooty/departament-pharmacognosy-home.html>

The M.Pharm in Pharmacognosy has curriculum which elaborates on the conservation of biospheres of medicinal value and the importance of cultivation of such rare medicinal plants.

ADVANCED PHARMACOGNOSY - I
(MPG 102T)

SCOPE

To learn and understand the advances in the field of cultivation and isolation of drugs of natural origin, various phytopharmaceuticals, nutraceuticals and their medicinal use and health benefits.

OBJECTIVES

Upon completion of the course, the student shall be able to know the,

- advances in the cultivation and production of drugs
- various phyto-pharmaceuticals and their source, its utilization and medicinal value.
- various nutraceuticals/herbs and their health benefits
- Drugs of marine origin
- Pharmacovigilance of drugs of natural origin

THEORY

60 Hrs

1. Plant drug cultivation: General introduction to the importance of Pharmacognosy in herbal drug industry, Indian Council of Agricultural Research, Current Good Agricultural Practices, Current Good Cultivation Practices, Current Good Collection Practices, Conservation of medicinal plants- Ex-situ and In-situ conservation of medicinal plants. 12 Hrs

More details in this link - https://www.pci.nic.in/pdf/Syllabus_M_Pharm.pdf

 Principal J.S.S. COLLEGE OF PHARMACY Rockland's, Ootacamund - 643 001	 B. Shivaramakrishnan Coordinator Smart Campus-JSSCPO
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COLLABORATION WITH LOCAL COMMUNITIES

Nilgiris Biosphere Medicinal Plants Exhibition

The College as a body always extends support to organise events aimed at promotion conservation and sustainable utilisation of the land, including forests and wildlife. The Department of Pharmacognosy of the college annually organizes such events to promote the conservation of medicinal plants in the Nilgiris Biosphere.



Department of Pharmacognosy – Achievements in Flower Shows & Rose Show Competitions

We are delighted to announce that during the 20th 'Rose Show' competitions held from May 10 to 12, 2025, JSS College of Pharmacy & JSS Public School, Ooty, were awarded an impressive 16 prizes:

- Rolling Cup: 2
- First Prize: 5
- Second Prize: 4
- Special Prize: 5

Hearty congratulations to the TIFAC Center, Staff of the Department of Pharmacognosy, and our enthusiastic students for their outstanding creativity, commitment, and hard work in community engagement initiatives, which have further enhanced the institution's reputation.

Building on past achievements, the Department of Pharmacognosy has a tradition of excellence. At the 125th Flower Show and 175th Anniversary 'Ooty 200' competitions held at the Government Botanical Garden in May 2023, the Department secured 9 prizes (1 Rolling Cup, 4 First Prizes, 2 Second Prizes, 1 Third Prize, and 1 Special Prize). Additionally, in the Rose Show Competitions, the Department won 3 prizes (2 First Prizes and 1 Special Prize), including awards in the Arrangement of Roses (Special Prize) and Rose Rangoli (First Prizes).

These achievements reflect the Department's dedication to community service, creativity, and continuous pursuit of excellence. Congratulations once again to all the staff and students involved for bringing laurels to the institution!

 Principal PRINCIPAL J.S.S. COLLEGE OF PHARMACY Rockland's, Ootacamund - 643 001	 B. Shivaramakrishnan Coordinator Smart Campus-JSSCPO
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Waste Management

Managing waste in a smarter way is the most important aspect of any organization. For this management for the waste we have Bio-waste management, initiative of plastic free campus with no plastic bottles, Rain Water harvesting management for the reduction of water waste to save more water. Mechanical Chimneys, Fume hoods for chemical reactions and Bio-safety cabinets (Class II type A/B3).

The College follows the Government Gazette on Plastic Free zone in the whole Nilgiris District. The Enlisted items are completely banned within the campus. On, MAY 09, 2018 The Government Policy is abided by the College strictly and no single-use plastic items are used on the campus.

- <https://nilgiris.nic.in/plastic-free-nilgiris/#banned>
- <https://cdn.s3waas.gov.in/s339461a19e9eddfb385ea76b26521ea48/uploads/2022/03/2022032483.pdf>

The garbage waste disposal by the Municipality collects recycle plastic items from Separate bins placed around the campus.



Colour codes for Biomedical waste collection and Packing

				
- Human and animal anatomical wastes - Soiled wastes, - Discarded or expired medicines - Chemical wastes, - Blood and body fluids - Microbiology / Biotechnology wastes	Contaminated waste (recyclable)	- Sharps including metals - Needles - Scalpels - Blades	- Broken and contaminated glass including vials and ampoules - Metallic body implants	- Food items - Papers / paper plates, - Water bottles, etc

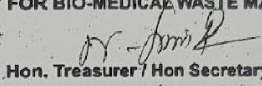
The College has a Biomedical Waste Disposal certificate in accordance with the Nilgiris District Municipality Office. The sanitation team collects the biomedical waste from the campus for incineration process at the Centralized facility at the Government.



Membership Certificate

The University also publishes the Waste Disposal in a detailed webpage given in the link.

<https://jssuni.edu.in/jssaher/jssaher-infra/institutional-biosafety-committee/ibsc-home.html>

	SOCIETY FOR BIO-MEDICAL WASTE MANAGEMENT(REGD) & IMA - NILGIRIS BRANCH REGD No:72/2010	
	No. 4463	Date : 08.07.25
Received with thanks from Dr./ Messers. J.S.S. College of pharmacy a sum of Rupees. Twenty Thousand One Hundred & Sixty towards Membership fee / BMW handling charges / by cash / Cheque / DD / for the period July 2025 to June 2026		
₹ 20,160/-		For SOCIETY FOR BIO-MEDICAL WASTE MANAGEMENT  Hon. Treasurer / Hon Secretary

 PRINCIPAL J.S.S. COLLEGE OF PHARMACY Rockland's, Ootacamund - 643 001	 B. Shivaramakrishnan Coordinator Smart Campus-JSSCPO
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1. LIFE ON LAND (SDG 15)

Details Related to SDGs	Evidence with documents	Weblink to support the details
1.1 Research on land ecosystems Research supporting SDG 15: Research on Life on Land (List of publications reflecting the research towards Life on Land in Vancouver style) 1. Salehzadeh, H. (2024). BiZnO/Fe₃O₄ nanocomposites for pesticide degradation. <i>Materials Today Sustainability</i>, 28(28), 100962. 2. Salehzadeh, H. (2024). Ni:ZnO/Fe₃O₄ nanocomposite for diazinon degradation. <i>Journal of the Taiwan Institute of Chemical Engineers</i>, 161(161), 105528. 3. Cleetus, C. J. (2025). Biodiversity in Munnar. <i>International Journal of Ecology and Environmental Sciences</i>, 7(1), 29-38. 4. Adarsh, S. (2024). Human-elephant conflict in Bandipur. <i>Indian Journal of Natural Sciences</i>, 15(87), 85637-85643. 5. Sarva Mangala Praveena, S. (2024). Microplastics in urban soils. <i>Land Degradation & Development</i>, 1(13), 1-13. 6. Vasudha Ranjan, M. (2025). Albendazole tablet on soil quality. <i>Bioscene</i>, 22(2), 171-184. 7. Vasudha Ranjan, M. (2025). Clonazepam tablet on soil quality. <i>BPAS Publishers</i>, 14(1), 344-357 8. Vasudha Ranjan, M. (2024). Paracetamol tablet contamination in soil. <i>Bioscene</i>, 21(4), 556-571. 9. Vasudha Ranjan, M. (2024). Amoxicillin tablet disposal impact. <i>Bioscene</i>, 21(4), 795-809. 10. Vasudha Ranjan, M. (2024). Ranglim tablet soil quality. <i>Pollution Research</i>, 43(3-4), 275-284. 11. Vinod, R. B. (2024). Ethnobotanical study in Aralam WLS. <i>Scholarly Research Journal For Interdisciplinary Studies</i>, 13(72), 1045-1055. 12. Wilson Joel Rodrigues, D. (2024). Microplastics and nanoplastics human exposure. <i>Revista Electronica de Veterinaria</i>, 25(1s), 537-543. 13. Vinod Kumar, K., Bokade, P. P., Lakshman, R., Deenadayalan, O., Sowjanya Kumari, S., Nayak, A., Shivamallu C & Balamurugan, V. (2025). Meta Analysis of Bovine Leptospirosis Prevalence in India. <i>Archives of Razi Institute</i>.		

14. Naveenkumar V, Bharathi MV, Kannan P, Nag BP, Sundaram S, Mohanadasse NQ, Amachawadi RG, Dubey M, Cull CA, Shivamallu C, Kollur SP. (2025). Epidemiological insights into canine rabies in Chennai: Trends, forecasting and One Health implications. *One Health*, 101128.
15. Revanasiddappa, P. D., Gowtham, H. G., KP, C., Natarajamurthy, S., Nataraj, K., Pradeep, S., Chandan, S., Elossaily, G. M., Achar, R. R., Silina, E., C others (2024). Computational exploration of Picrasma quassioides compounds as CviR-mediated quorum sensing inhibitors against Chromobacterium violaceum. *Frontiers in Chemistry*, 12, 1286675.
16. Yuvaraj, S. (2024). Biological invasions and biodiversity threats linked to genetically modified organisms. *Revista Electronica de Veterinaria*, 25(1), 2158–2169.*
17. Sumitha, E. (2025). DNA-based approaches for the discrimination of medicinal plants from their adulterants. Taylor & Francis. ISBN: 9781003326939.
18. Sumitha, E. (2024). Nanoparticle and genetic engineering in plants. IIP Iterative International Publishers. ISBN: 9789362523105.
19. Sumitha, E. (2024). Chapter 3 - Nanoparticle and genetic engineering in plants. Iterative International Publishers. ISBN: 9789362523105.
20. Bhat, A. R. (2024). Curating and validating universally applicable primers for efficient ITS2-based DNA barcoding across plant taxa. *International Journal of Health and Allied Sciences*, 5(1), 1–5. Cold Spring Harbor Laboratory.
21. Hoseinpoor, S. (2024). Bioactive compounds from medicinal plants as inhibitors. *Journal of Biomolecular Structure and Dynamics*, 1(1), 1–13. Taylor & Francis.

15.2 Supporting land ecosystems through education

15.2.1 Does your College & University support and/or organize events aimed to promote conservation and sustainable utilization of the land, including forests and wild land?	Explain and attach evidence /documents supporting your explanation	
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Events about sustainable use of land		
Evidence:		
Any other Comments:		
15.2.2 Does your College & University have policies to ensure that food on campus is sustainably farmed? Sustainably farmed food on campus	Explain and attach evidence /documents supporting your explanation	
Evidence		
Any other Comments:		
Institutional Policy created (Year)?		
Any other Comments:		
Institutional Policy reviewed (Year)?		
Any other Comments:		

15.2.3 Does your College & University work directly to maintain and extend existing ecosystems and their biodiversity, of both plants and animals, especially ecosystems under threat? Maintain and extend current ecosystems' biodiversity	Explain and attach evidence /documents supporting your explanation	
Evidence		
Any other Comments:		
15.2.4 Does your College & University offer educational Programmes on ecosystems (looking at wild flora and fauna) for local or national communities? Educational Programmes on ecosystems	Explain and attach evidence /documents supporting your explanation	
Evidence		
Any other Comments:		
15.2.5 Does your College & University offer educational programme/outreach for local or national communities on sustainable management of land for agriculture and tourism? Sustainable management of land for agriculture and tourism (educational outreach	Explain and attach evidence /documents supporting your explanation	
Evidence		

Any other Comments:		
15.3 Supporting land ecosystems through action		
15.3.1 Does your College & University have a policy to ensure the conservation, restoration and sustainable use of terrestrial ecosystems associated with the University / College, in particular forests, mountains, and drylands? Sustainable use, conservation and restoration of land (policy)	Yes – Explain and attach evidence /documents supporting your explanation	
Evidence		
Any other Comments:		
Institutional Policy created (Year)?		
Any other Comments:		
Institutional Policy reviewed (Year)?		
Any other Comments:		
15.3.2 Does your College & University have a policy to identify, monitor and protect any IUCN Red Listed species and national conservation list species with habitats in areas affected by the operation of your University / College? Monitoring IUCN and other conservation species (policies)	Explain and attach evidence /documents supporting your explanation	

Evidence:		
Any other Comments:		
Institutional Policy created (Year)?		
Any other Comments:		
Institutional Policy reviewed (Year)?		
Any other Comments:		
15.3.3 Does your College & University include local biodiversity into any planning and development process (e.g. construction of new buildings)? Local biodiversity included in planning and development	Explain and attach evidence /documents supporting your explanation	
Evidence:		
Any other Comments:		
15.3.4 Does your College & University have a policy to reduce the impact of alien species on Campus Alien species impact reduction (policies)	Explain and attach evidence /documents supporting your explanation	
Evidence		
Any other Comments:		
Institutional Policy created (Year)?		
Any other Comments:		

Institutional Policy reviewed (Year)?		
Any other Comments:		
15.3.5 Does your College & University collaborate with the local community, e.g. through partnerships, in efforts to maintain shared land ecosystems? Collaboration for shared land ecosystems	Explain and attach evidence /documents supporting your explanation Auric Cosmo India Private Limited (Incubated in Sparkle Cine), JSS Academy of Higher Education & Research are pioneers in snail farming and Breeding. The company Director Dr. Asha Srinivasan plans to have a rural capacity building interconnecting snail farming, where it is an emerging and profitable industry. Capacity building provides the necessary knowledge, skills, and resources to help farmers and organizations successfully establish and manage snail farms for sustainable income and food security. They are funded by the Biotechnology Ignition Grant,	https://mail.google.com/mail/u/0/?tab=rm&ogbl#inbox/FMfcgzQcpdrwPCjnlcZcqTMrwNFDRTdJ?projector=1&messagePartId=0.1

	Government of India and K-TECH, Govt of Karnataka.	
Evidence		
Any other Comments:		
15.4 Land sensitive waste disposal		
15.4.1 Does your College & University have water quality standards and guidelines for water discharges (to uphold water quality in order to protect ecosystems, wildlife, and human health and welfare, etc.)? Water discharge guidelines and standards	Explain and attach evidence /documents supporting your explanation	
Evidence		
Any other Comments:		
15.4.2 Does your College & University have a policy on reducing plastic waste on campus? Policy on plastic waste reduction	Yes	https://jssaherstoragew.blob.core.windows.net/jssuudstorage/udpdocs/home-page-sdg-minimising-the-use-of-plastic-policy.pdf
Evidence		
Any other Comments:		
Institutional Policy created (Year)?		
Any other Comments:		

Institutional Policy reviewed (Year)?		
Any other Comments:		
15.4.3 Does your College & University have a policy, process or practice on waste disposal - covering hazardous materials? Policy on hazardous waste disposal	Explain and attach evidence /documents supporting your explanation	https://jssaherstoragene.w.blob.core.windows.net/jssuudstorage/udpdocs/home-page-sdg-waste-managment-policy.pdf
Evidence		
Institutional Policy created (Year)?		
Any other Comments:		
Institutional Policy reviewed (Year)?		
Any other Comments:		

1. LIFE ON LAND (SDG 15)

Details Related to SDGs	Evidence with documents	Weblink to support the details
1.1 Research on land ecosystems Research supporting SDG 15: Research on Life on Land (List of publications reflecting the research towards Life on Land in Vancouver style) : NIL		
15.2 Supporting land ecosystems through education		
15.2.1 Does your College & University support and/or organize events aimed to promote conservation and sustainable utilization of the land, including forests and wild land? Events about sustainable use of land	NIL	
Evidence:		
Any other Comments:		
15.2.2 Does your College & University have policies to ensure that food on campus is sustainably farmed? Sustainably farmed food on campus	NIL	
Evidence		
Any other Comments:		
Institutional Policy created (Year)?		
Any other Comments:		
Institutional Policy reviewed (Year)?		
Any other Comments:		

15.2.3 Does your College & University work directly to maintain and extend existing ecosystems and their biodiversity, of both plants and animals, especially ecosystems under threat? Maintain and extend current ecosystems' biodiversity	NIL	
Evidence		
Any other Comments:		
15.2.4 Does your College & University offer educational Programmes on ecosystems (looking at wild flora and fauna) for local or national communities? Educational Programmes on ecosystems	NIL	
Evidence		
Any other Comments:		
15.2.5 Does your College & University offer educational programme/outreach for local or national communities on sustainable management of land for agriculture and tourism? Sustainable management of land for agriculture and tourism (educational outreach	NIL	
Evidence		
Any other Comments:		

15.3 Supporting land ecosystems through action

15.3.1 Does your College & University have a policy to ensure the conservation, restoration and sustainable use of terrestrial ecosystems associated with the University / College, in particular forests, mountains, and drylands? Sustainable use, conservation and restoration of land (policy)	YES	https://jssaherdatalake.blob.core.windows.net/quality/EnvironmentalandSustainabilityPolicyStatement.pdf
Evidence	ATTACHED POLICY	
Any other Comments:		
Institutional Policy created (Year)?		
Any other Comments:		
Institutional Policy reviewed (Year)?		
Any other Comments:		
15.3.2 Does your College & University have a policy to identify, monitor and protect any IUCN Red Listed species and national conservation list species with habitats in areas affected by the operation of your University / College? Monitoring IUCN and other conservation species (policies)	NIL	
Evidence:		
Any other Comments:		
Institutional Policy created (Year)?		
Any other Comments:		
Institutional Policy reviewed (Year)?		
Any other Comments:		

15.3.3 Does your College & University include local biodiversity into any planning and development process (e.g. construction of new buildings)? Local biodiversity included in planning and development	NIL	
Evidence:		
Any other Comments:		
15.3.4 Does your College & University have a policy to reduce the impact of alien species on Campus Alien species impact reduction (policies)	NIL	
Evidence		
Any other Comments:		
Institutional Policy created (Year)?		
Any other Comments:		
Institutional Policy reviewed (Year)?		
Any other Comments:		
15.3.5 Does your College & University collaborate with the local community, e.g. through partnerships, in efforts to maintain shared land ecosystems? Collaboration for shared land ecosystems	NIL	
Evidence		
Any other Comments:		
15.4 Land sensitive waste disposal		
15.4.1 Does your College & University have water quality standards and guidelines for water discharges (to uphold	NIL	

water quality in order to protect ecosystems, wildlife, and human health and welfare, etc.)? Water discharge guidelines and standards		
Evidence		
Any other Comments:		
15.4.2 Does your College & University have a policy on reducing plastic waste on campus? Policy on plastic waste reduction	YES	https://jssaherstoragenew.blob.core.windows.net/jssuudstorage/udpdocs/home-page-sdg-minimising-the-use-of-plastic-policy
Evidence	Attached policy and its weblink is given here	https://jssaherdatalake.blob.core.windows.net/quality/sls-ooty-sdg-15-4-2-plastic-policy.pdf
Any other Comments:		
Institutional Policy created (Year)?		
Any other Comments:		
Institutional Policy reviewed (Year)?		
Any other Comments:		
15.4.3 Does your College & University have a policy, process or practice on waste disposal - covering hazardous materials? Policy on hazardous waste disposal	YES	https://jssuni.edu.in/jssaher/jssaher-infra/institutional-biosafety-committee/ibsc-home.html#:~:text=The%20chairman%20of%20IBSC%20has%20the%20responsibility%20to%20ensure%20the,for%20biohazardous%20work%20and%20disposal
Evidence	Attached policy and its	https://jssaherdatalake.

	weblink is given here	blob.core.windows.net/quality/sls-ooty-sdg-15-4-3-waste-disposal-hazardous-material.pdf
Any other Comments:		
Institutional Policy created (Year)?		
Any other Comments:		
Institutional Policy reviewed (Year)?		
Any other Comments:		