



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

COMPENDIUM ON SDG-6

CLEAN WATER AND SANITATION

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



2023-24

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INTRODUCTION

	<p>SDG 6 emphasizes the importance of integrated water resources management, protecting ecosystems related to water, and supporting the participation of local communities in water management.</p>		<p>This commitment enhances the college's social responsibility and strengthens its role in advancing global health goals.</p>
			
	<p>SDG 6 aims to ensure the availability and sustainable management of water and sanitation for all by 2030. Access to clean water and adequate sanitation is fundamental to human health, economic development, and environmental sustainability.</p>	<p>Adopting SDG 6 is crucial for JSS AHER as it directly aligns with the institution's mission to promote public health and well-being. Access to clean water and sanitation is essential for preventing waterborne diseases, reducing hospital-acquired infections, and ensuring a safe and hygienic environment for both patients and healthcare workers.</p>	

The demand for water has outpaced population growth, and half the world's population is already experiencing severe water scarcity at least one month a year. Access to water, sanitation and hygiene is a human right, yet billions are still faced with daily challenges accessing even the most basic of services. 3 in 10 people lack access to safely managed drinking water services. About 3 billion people lack access to basic sanitation services, such as toilets or latrines.

One in three people live without sanitation. This is causing unnecessary disease and death. Although huge strides have been made with access to clean drinking water, lack of sanitation is undermining these advances. If we provide affordable equipment and education in hygiene practices, we can stop this senseless suffering and loss of life.

Status in India

- 4 % of Average global runoff in rivers
- Nearly people are affected by drought in India
- Over 20% of the population lives in status which are not yet declared open defecation free
- 1/5 child death are due to severe diarrhoea in India
- Each year nearly 102813 children die due to severe diarrhoea

ACTIVITIES ALIGNING TO SDG 6

JSS Medical College has a structured policy for green campus and maintenance of sanitation in the college and hospital premises.



Water conservation program

- Sensitizing the staff and students
- Cutting back on car washing
- Irrigation Techniques and Duel Flushing Systems

Recycle programs

- Green waste as fertilizer
- Food Waste reduction through self-service
- Waste water treatment

Green Policy for the use of papers

- Double side printing
- Use of E- tapaal for internal communication

AVAILABILITY OF CLEAN DRINKING WATER FOR STUDENTS, FACULTY, PATIENTS AND VISITORS

The JSS Medical College and Hospital campus is equipped with advanced Reverse Osmosis (RO) water systems to ensure that students, staff, and visitors have access to safe drinking water. We have two RO systems with a capacity of 500 liters per hour (LPH) installed across the college campus, and three RO systems with a capacity of 300 liters per day (LPD) installed in the boys' and girls' hostels.

To maintain the quality and safety of the water produced, we adhere to a stringent maintenance and testing regimen. Our RO plants are subject to regular maintenance to ensure optimal performance. The Department of Water and Environmental Science at JSS School of Life Sciences, Mysuru conducts routine quality testing of water from all sources. This testing follows the APHA (American Public Health Association) 23rd edition guidelines for chemical parameters and includes microbiological sampling to confirm the potability of the water. All sources of potable water on the campus, including those from the RO systems and borewells, are tested twice a year. This thorough testing process ensures that the water provided meets the required quality standards and is safe for consumption. We are committed to the health and well-being of our campus community, and through these measures, we aim to provide clean and safe drinking water at all times.



Safe water facilities at medical college and hospital premises

CHLORINATION OF WATER SUPPLY SOURCES

Chlorination is a crucial process in providing clean and safe water which supports health by preventing waterborne diseases and improving overall public health.

At JSS Medical College and Hospital the chlorination of water is a key initiative aimed at enhancing

health and safety of patients, staffs and visitors. To ensure that our water supply is free from harmful pathogens, a rigorous chlorination process is implemented.

Chlorination is applied to the sources to ensure water safety before it reaches the storage tanks and sumps.

Pre-chlorination assessment is done to determine the quality of water. Chlorination process is implemented to disinfect the water stored in collection tanks and sumps. Assessments are carried out regularly to evaluate system's efficiency and quality of treated water. Regular inspections of chlorination equipment and systems are undertaken to prevent malfunctions and ensure optimal performance.

CHLORINE WATER TANK



WATER CONSERVATION PROGRAM

Sensitizing the staff and students

The students arriving on campus and at the hostels are sensitized about water conservation in their orientation meetings. Printed stickers/labels with the slogan 'Save Water' are fixed in strategic places of the college and hostels.

Cutting back on car washing

The vehicles on the campus are washed based on the real needs rather than regular washing to save water.

Irrigation Techniques and Dual Flushing Systems

The gardens are irrigated with sprinkler systems to save the wastage of water in plantations.

SUSTAINABLE WATER EXTRACTION TECHNOLOGY

RAINWATER HARVESTING

Rainwater harvesting collection tank of 30,000 liters storage capacity.

10 no's of Groundwater & bore well recharge pits and infiltration tank of about 15,000 liters

capacity.

STP of 25 KLD capacity by using SWR technology has been installed for treating sewage & kitchen wastewater of PG Guest Hostel & the treated water is used for the gardening area developed surrounding the building.

One tank of 10,000 liters capacity is made for reuse of RO rejected water for gardening purposes

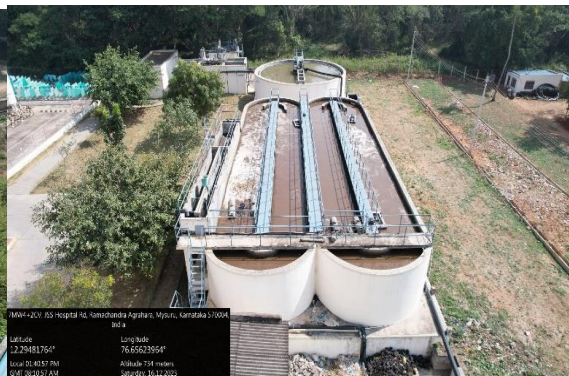
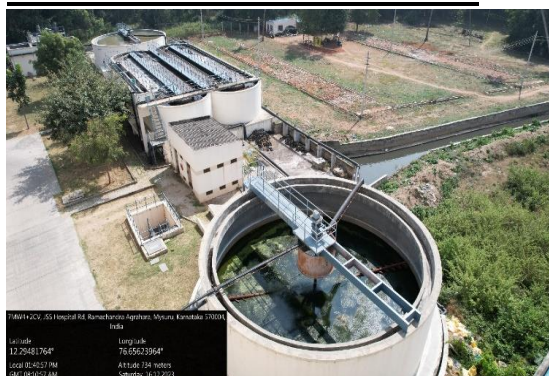
Water sprinklers are in place



RAINWATER HARVESTING COLLECTION (SUMP) STORM WATER DETENTION POND



SEWAGE TREATMENT PLANT



SECONDARY CLARIFIER



WATER TREATMENT PLANT THE SMALL-SCALE SEWAGE TREATMENT PLANT



Facility for Reverse Osmosis (RO)

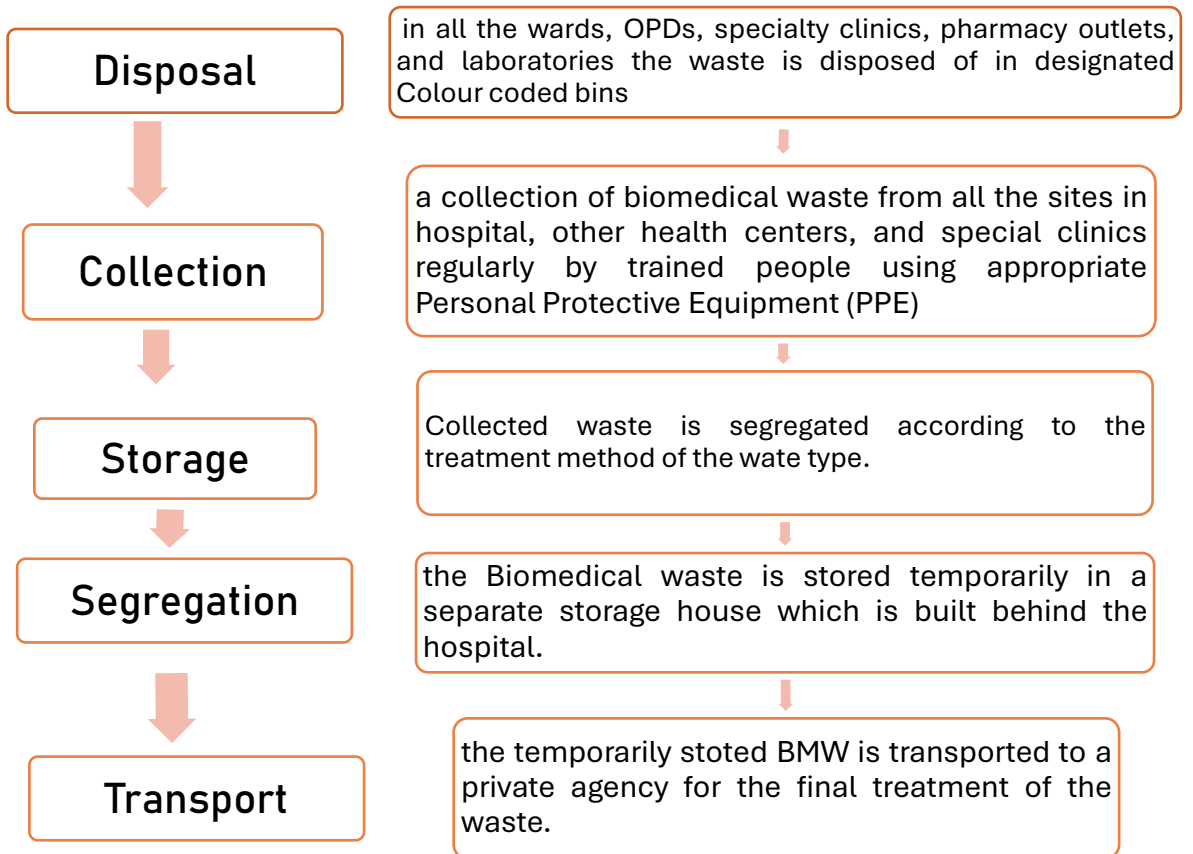


SANITATION & HYGIENE
WASTE MANAGEMENT & POLICIES OF JSS MEDICAL
COLLEGE SUPPORTING SDG 6

1. **Biomedical waste management**

Biomedical waste management in the JSS hospital, Medical College, and allied health centers follows the Biomedical Waste Management Rules 2016.

Generated Biomedical waste in health centers follows the following step before it is treated.



The BMW waste treatment services are availed from a private agency M/s. Shree Consultants since 2003. The JSS Hospital website displays month-wise how much BMW is generated from the hospital.

BIOMEDICAL WASTE DISPOSAL SIGNAGE



DISPOSAL BINS IN PROCEDURE ROOM



2. General waste

1. Segregation and collection of dry and wet garbage are in practice.
2. Color-coded dustbins are provided across the campus.
3. Waste collection by municipal lorries regularly from all the sites.
4. Swachh Sarvekshan posters are put up in various places in the hospital, medical college, and hostel premises.

**BIOMEDICAL WASTE DISPOSAL BINS (Color-coded dustbins and covers
Display of waste categories to the respective bins)**



Separate colour-coded dustbins for wet and dry waste

Sign-board with instructions on using dustbin

3. Sanitary napkin disposal

At the girl's hostels of JSS Medical College, there is provision for safe disposal and treatment of sanitary napkins. Installed sanitary napkin incinerator in the hostels.

4. Liquid waste from laboratories.

The liquid waste generated from the clinical laboratories is disposed of safely by the hospital. there is an Effluent Treatment Plant (ETP) in the hospital to make wastewater from the hospital safe to dispose of in the general drainage system.



Hand hygiene

i. Hand sanitizers are placed at various places in hospital, Medical College, and hostels with appropriate sanitizer dispensers placed.



ii. Hand washing technique: this is a skill taught to the undergraduate students and assessed on the appropriate technique of hand washing and the importance of hand hygiene in the prevention of the disease spread.

BMW STATUS 2023-24

Month-wise Update and display of BMW waste of different category in JSS Hospital website

BIO-MEDICAL WASTE STATUS JULY 2023 TO JUNE 2024

Month	Yellow Bags in Kgs/Month	Red Bags in Kgs/Month	White Bags in Kgs / Month	Blue Bags Kgs / Month
July 2023	3853	2422	227	810
August 2023	3887	2577	294	934
September 2023	3083	2324	284	922
October 2023	3247	2041	287	1012
November 2023	3200	2039	284	926
December 2023	4068	2295	283	1019
January 2024	4148	2269	283	1224
February 2024	2942	2254	203	1225
March 2024	3618	2115	242	1036
April 2024	3705	2156	298	1246
May 2024	3920	2424	274	1384
June 2024	4243	1392	321	2617
Total	43914	26308	3280	14355

RECYCLE PROGRAMS

- Green wastes, like tree and bush trimmings, are composted and reused for fertilizer and preparation composts.
- Food waste is also cut down by implementing self-serving of food by the students, so they aren't tempted to waste food. Further, the food remains are collected systematically and

used for preparing composts manure in the dig wells which is used for gardening purposes. Hazardous solvent systems are recycled/disposed of safely.

- The wastewater from the utility areas of the hostels and the college are subjected to treatment before being flushed into the public drainage system.

GREEN POLICY FOR THE USE OF PAPERS

- The college encourages the practices like double-sided printing and the usage of one-side papers for taking printouts.
- All the internal notifications and circulars are communicated in electronic formats (e-Tapaal).

ACADEMIC ACTIVITIES RELATED TO SDG – 6

Focus on Undergraduate students

- **Visit Water purification plant:** Students of MBBS Phase III Part I are taken for a visit to a large-scale water purification center during their Community Medicine department posting. They learn about the purification techniques of water on a large scale, chlorination of water, and distribution of safe drinking water on a large scale. They also visit the Public Health laboratory on the premises of water works, where they learn about water quality surveillance.
- **Public Health laboratory at the Department of Community Medicine:** the MBBS students are taught about the identification of chlorine demand in water, different disinfectants used in water disinfection at the household level, and identification of the amount of residual chlorine using a chloroscope.
- **Hand Hygiene technique:** In the department of Microbiology the undergraduates are taught about hand washing techniques and the importance of hand hygiene.
- **Biomedical Waste Management:** In the department of Community Medicine and Microbiology, the students are taught practical skills of disposal, segregation, transport, and treatment of biomedical waste
- **Environment and Health:** The BSc Allied Health sciences students are taught for one complete semester on different aspects of environment affecting the health. Includes water purification, solid and liquid waste management, Biomedical Waste Management, Sewage treatment, Excreta disposal, etc.

Focus on Postgraduate students

- **Water Surveillance:** the MD Postgraduates, Master in Public Health (MPH), and MSc Microbiology students are trained in regular water surveillance for detection of water quality assessment, fecal contamination of water, chlorine content, chlorine demand etc.
- **Outbreak investigation:** investigation and reporting of water borne disease outbreaks, i.e. Typhoid, GE, etc is taught to the Community Medicine and Public Health post graduates.
- **Stool examination:** the postgraduates are taught and assessed about stool examination techniques to identify the ova and cyst in the stool.

- **MTech in Health Science and Water Engineering:** Students from the Master of Technology are taught about water and related diseases

OUTREACH ACTIVITIES

“Swachhata Hi Seva” – 01-10-2023

“Swachh Bharat Abhiyan” was conducted to disseminate the importance of a “**Sampoorna Swachh Bharath**”, to reinforce the concept of **sanitation as everyone’s business**. To prelude “Swachh Seva” activities, many students and faculty volunteers from **JSS Academy of Higher Education and Research, Mysuru** conducted cleanliness activities on **1st October 2023** between **9:30 am-11:30 am**.

The program involved the commissioner, deputy mayor, and regional corporator of Mysuru city corporation who actively took part and supported the whole event. The program was started with the felicitation of the corporation authorities by **Dr.Praveen Kulkarni, Vice-Principal, JSS Medical**, and **Dr.Krishna K.L., NSS Programme Officer, JSS AHER College Mysuru**.

Dr.Praveen Kulkarni passed the initial remarks about the importance of cleanliness in the health professions by reiterating the significance of the prevention of various communicable and non-communicable diseases. Subsequently, the formal inauguration of the cleanliness drive was marked by the deputy mayor by initiating the cleaning activities at the entrance of **JSS AHER**. **Twenty-five student MBBS NSS volunteers and 10 faculty from JSS MC** actively participated in the event and cleaned the streets and parks by plogging various degradable and non-degradable substances in areas coming under the jurisdiction of **Sri Shivarathreshwara Nagara**.

The activity was supported and encouraged by the Principal and Vice Principal of **JSS Medical College, Mysuru**; and the administrative officer **JSS Medical College, Mysuru**. **Dr. Krishna K L, NSS programme officer JSS AHER** was instrumental in conducting this whole event. The program was supervised and coordinated by **NSS program officers NSS unit, JSS Medical College, Mysuru**.



Shramadaan at K R Mills by JSS Medical College, Mysuru – 09-03-2024



As part of Family Adoption Program, along with NSS, “Shramadaan”- Giving Back to community- activity was organized on 9th March 2024 at K R Mills colony, Hanchya PHC, Mysore. As part of the program 1st year MBBS students were involved as NSS volunteers and carried out cleaning of the premises of KR Mills Subcentre, Government Model Higher primary School, KR mills and Government High School, K R mills. The students also gave health education to school students on importance of segregation of dry and

wet waste at household level, personal hygiene and hand hygiene. Dr.Shwetha Kurkuri, Dr.Sunitha Singh, Senior Residents, Dept of Community Medicine, Dr.Amoghashree, Asst.Prof., Dept. of Community Medicine, Dr.Ravishankar, Asst.Prof., and NSS Co-ordinator, Dept. of Anatomy, JSS Medical College, Mysuru along with Post graduates from the Dept. of Community Medicine, JSS Medical College, coordinated the whole event. Support was also extended by Dr.Sunil Kumar D, HOD, Dept. of Community Medicine, JSS Medical College, Gram Panchayat, Siddlingipura, Dr.Ravidra, Medical Officer, Hanchya PHC, Mysuru for the event.

Observation of Adolescent Day – 01-08-2023

Department of community Medicine, JSS Urban Health Center, JSS Medical College, Mysuru observed Adolescent day in association with Inner wheel club of Mysuru Gold. A Programme was organized to create an awareness on Menstrual Health and Hygiene to girls studying in 5th to 10th standard of Government Higher Primary school and Government High School Yadavagiri, Mysuru at Yadavagiri school premises on 01.08.2023.

Dr Rama H.V, Lady Medical officer of JSS Urban Health Center gave a talk on Menstruation, Menstrual hygiene, Adolescence Managing Problems during adolescence. This was followed by question and answer session and queries from students were clarified. The Hygiene kit including 10 sanitary napkins, toothpaste, tooth brush, soap were distributed to the school which was sponsored by Inner wheel club of Mysuru Gold.

Smt. Uma Anil, President, Smt Vijayalakshmi secretary of Inner wheel club of Mysuru Gold, Sri. Mahesh, Head Master, Government High School, Smt Nagaveni, Head Mistress Government Higher Primary School yadavagiri and their staff, Medico social students, were present during the event. 40 girls attended and gained the knowledge through the programme. Sri. Santhosh, Health Inspector, Sri Sunil, Health Assistant. Sri. Mallikarjuna swamy, Social Worker. coordinated the Programme.



Health Awareness Programme on Menstrual and Personal Hygiene

On 27th December 2023 the JSS Medical College NSS unit JSS MC, fuelled with compassion and a commitment to social well-being, embarked on a journey of awareness and education. Our activities began at 10:30 AM, as we visited the apartments at Rajarajeshwari Nagar, Mysuru armed with compelling charts, images, and motivational quotes. Our mission was to shed light on the crucial topics of HIV/AIDS prevention, communicable diseases, personal hygiene, and the problems related to drug and alcohol abuse. Students were engaged in the community interactions by spreading awareness, and igniting crucial conversations with the public. At 11:30 AM, our focus shifted to empowering young girls at a government high school. Dr Rama, medical officer, at JSS Urban Health Centre, Mysuru was instrumental in conducting this event at government high school. This activity was supported by Mr. Santhosh, health inspector JSS UHC, Mysuru. Ms.Sanya Sathish, delivered a comprehensive talk by sensitizing the young girls about menstruation and its hygiene. We delved into the often-silenced topic of menstrual hygiene, normalizing the conversation, and educating young girls about this essential aspect of their personal health. Dr.Rama, formally initiated the process of free sanitary pad distribution.



Menstruation and Menstrual Hygiene – 19-06-2024

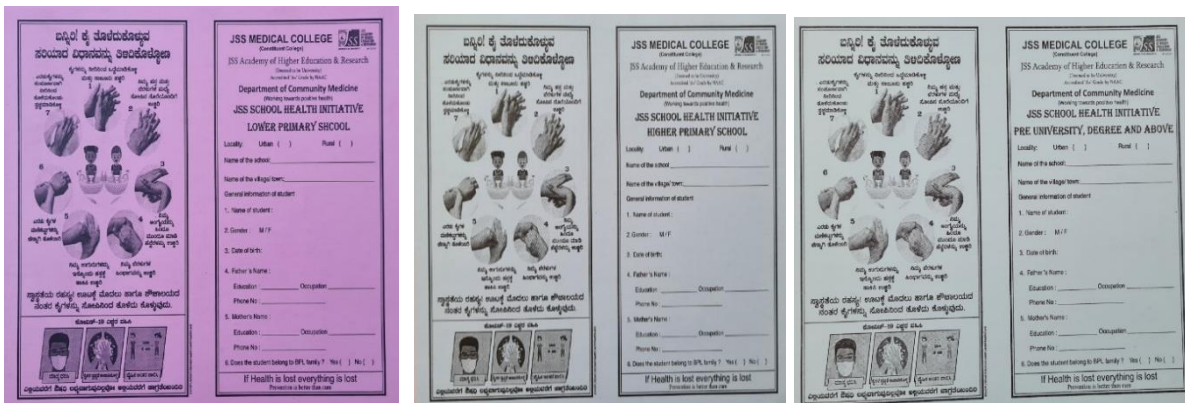
JSS College of Nursing in association with JSS Urban Health Centre, Department of Community Medicine, JSS Medical College, Mysuru had organised an awareness programme on *” Menstruation and Menstrual Hygiene”* For girls of Government High School, Bamboo Bazaar on *19-6-2024*. Dr H.V. RAMA*, Lady Medical Officer, JSS UHC who was the chief guest, spoke about the importance of Menstrual Hygiene.

Earlier students of JSS College of Nursing, gave awareness about Menstruation, various types of pads available, including Menstrual cup and Menstrual Hygiene. Smt. Pushpavathi, Government High School, Headmistress, Smt. Elizabeth and Smt Sandhyarani, Faculties of JSS College of Nursing, 52 High School girls, 45 students of JSS College of Nursing, and staffs of JSS UHC attended the programme.



School Health Appraisal program

Every year around 12,000-15,000 school and college students’ health appraisal is conducted by the Department of Community Medicine, JSS Medical College. During this appraisal program, there are separate health cards for primary school, middle and high school, and college students. These health cards also depict the pictorial message about hand washing techniques and personal hygiene methods. The students are also educated about personal hygiene, menstrual hygiene, and environmental hygiene (school & domestic).



Handwashing picture is depicted in School Health Appraisal cards

- In the schools along with health check up, children were educated about hand washing technique and importance of hand hygiene.



Projects, Publications and Presentations undertaken related to SDG 6

Research Projects

Ongoing research on the Evaluation & comparison of serum calcium, Magnesium, Phosphate, Alkaline Phosphatase, Vitamin-D, and Bone Mineral Density in children consuming reverse osmosis (RO), Non-RO and High Fluoride drinking water by Dr. Devananda D. Paediatrics, JSSMC in collaboration with JSS Dental College, funded by ICMR. Funding amount of 20.41 lakh, for 2 yrs from Dec 2022

Publications

Sarumathi Dhandapani., Haritha Madigubba., Deepashree Rajshekar., et al. Comparison of hand hygiene compliance among healthcare workers in Intensive care units and wards of COVID-19: A large scale multicentric study in India. American Journal of Infection Control. 2023

Yara A Alnashwan., Syed Sarmad Javaid., Magdy A Kharoshah., et al. Incidence and Comparison of Suicide in Various Phases of the Menstrual Cycle: a Systematic Review and Meta-analysis. Acta Informatica Medica. 2023

Presentations in Conference

Dr. Priya S. at BMSeCON 2023 presented a paper on Cognitive Responses to acute cold – water ingestion – An interventional study held from 13th to 15th December 2023

**

Dr Amoghashree, Asst. Prof, Presented on Effect of Educational model on Menstrual health behaviors and willingness among school going rural adolescent girls at EFICON 2023

**

Dr Amoghashree, Asst. Professor, presented on Knowledge on menstrual health and experience with physical environment of school's bathroom in menstrual hygiene management in rural schools of Mysuru, International TB Conclave 2023

- **Research Collaborations, Guest lectures, and Patents/copyrights related to SDG 6**

**Research
Collaboration**

Collaboration of School of Public Health with GRAAM in the area of Urban Youth Governance, with objective to Build the Capacity of the MPH students on Urban Governance issues including Urban Health and Sanitation challenges. In this regard seven MPH students were awarded with fellowship programs each year.

Research collaboration with JSS Medical College, JSS Dental College and ICMR on the Evaluation & comparison of serum calcium, Magnesium, Phosphate, Alkaline Phosphatase, Vitamin-D, and Bone Mineral Density in children consuming reverse osmosis (RO), Non-RO and High Fluoride drinking water by Dr. Devananda D. Paediatrics, JSSMC in collaboration with JSS Dental College, funded by ICMR. Funding amount of 20.41 lakh, for 2 yrs from Dec 2022

Guest Lectures

A guest Lecture on Environmental sanitation and safety was delivered by Dr Sunitha Singh, Dept of Community Medicine on 18th and 19th Aug 2023, KSOU

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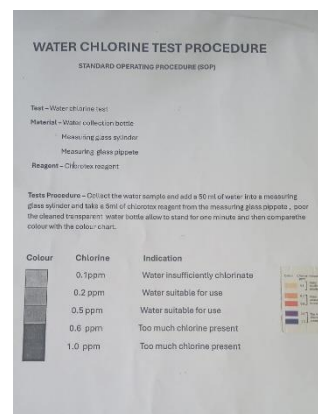
Panel discussion on Global Hand Washing Day by SIRD and UNICEF along with Dr Anil Bilimale from JSS Medical College on 16th Oct 2023

**Patents/
Copyrights**

Hand Hygiene through Simple English Poem copyrighted by Dr Sumana M.N, Dept of Microbiology, JSS Hospital with registration no. CF-5670/2024, approved on 10th May 24.

OTHER INITIATIVES BY THE MEDICAL COLLEGE

- The Medical Education Unit has conducted Foundation Course for 1st year MBBS Students of JSS Medical College from **Foundation Course for Phase 1 Students (2023-24 batch) from 09th September to 15th September 2023**. Eminent resource faculty from within and outside the institution took sessions on the areas as prescribed by National Medical Commission. The topics covered in the course were, apart from others were on Patient safety and biohazard safety-‘Concept of Biosafety – Handling Biowaste / Biomaterial Management’.
- The Department of Community Medicine, JSS Medical College has established a Standard Operating Procedure for Water Quality Testing for chlorination. Water samples from across the institutions including the hostel, and guest house will be tested regularly for the presence of adequacy of chlorine in the water. If found inadequate, measures will be taken to improve chlorination.
- Health education material on keeping safe during Cholera Outbreak was developed by Department of Community Medicine. The same has been displayed at the JSS Hostel premises.



Programs aligning to SDG

Policy on green campus & Sanitation



1. **Maintenance of clean, green and smart campus** – waste segregation and planned disposal of waste through authorized agencies only •
 - a. The University supports green practices in all its initiatives.
 - b. It has well-defined policies for its sustainable green practices which include its energy conservation policy, water conservation policy, transport policy, the SMART and Green campus policy and many such policies and practices that inculcate the importance of conserving the present for the future generations.



Color-coded dustbins and covers and display of waste categories to the respective bins.

2. Provision of Safe drinking water at college premises.

- a. To provide quality care, healthcare facilities need to have a safe and accessible water supply this is well maintained at JSSDCH.



Safe drinking water supply at various places in Dental College and Hospital premises

3. Sanitation and hygiene maintenance by the house keeping staff at college premises

- a. Clean and safe sanitation facilities; hand hygiene facilities at points of care and at toilets; and appropriate waste disposal systems are in place at JSSDCH.



Hand Sanitizer Dispensers at various places in hospital, Dental College & Hostel premises

4. Waste water treatment

- a. Infrastructure that supports water, sanitation, hygiene and healthcare waste management practices helps prevent the spread of diseases within the healthcare facility and to the surrounding community.

The small-scale sewage treatment plant



Facility for Reverse Osmosis (RO)

5. Rainwater harvesting

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.

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 very effort is made to keep these catchments clean
 - Rainwater harvesting collection tank of 30,000 liters storage capacity.
 - 10 no's of Groundwater & bore well recharge pits and infiltration tank of about 15,000 liters capacity.
 - STP of 25 KLD capacity by using SWR technology has been installed for treating sewage & kitchen wastewater of PG Guest Hostel & the treated water is used for the gardening area developed surrounding the building.

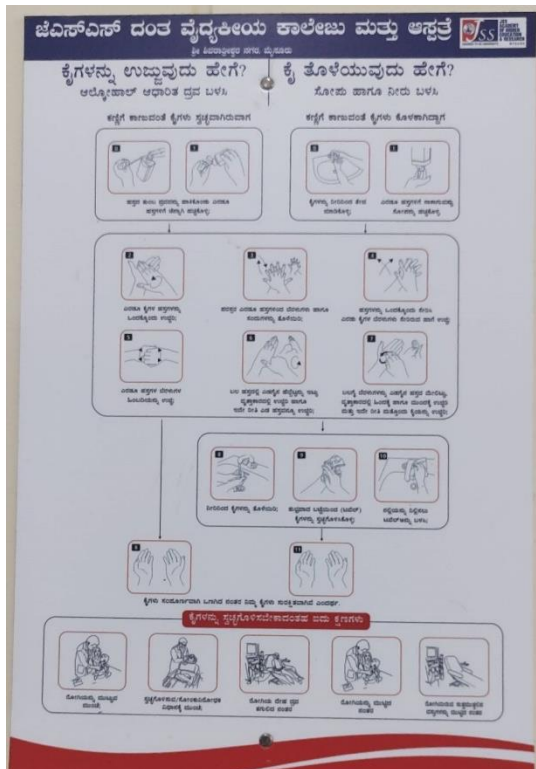
- One tank of 10,000 liters capacity is made for reuse of RO rejected water for gardening purposes
- Water sprinklers are in place



6. Biomedical waste management in an appropriate manner

- JSS Dental College and Hospital gives utmost importance to controlling and prevention of infection in patients, visitors, healthcare providers and community by adopting appropriate safety measures.
- JSS Dental College and Hospital has an organized Infection Control Committee and Infection Control Team which formulates policies and measures aimed at reducing and eliminating infection risks to patients, housekeeping staff, visitors and to the environment.

7. Hand hygiene practice training and protocol displayed in all departments.



8. Field visit by III BDS students to water purification plant

9. Plastic-free campuses

10. The HEI actively organizes Swachh Bharat Abhiyan and creates awareness and consciousness amongst students.

11. The Institution also has included a subject Environmental Sciences in all courses as stipulated by UGC and organizes Environment Day and Water Day

Outreach Camps through NSS

The Department of Health System Management Studies conducts various activities to complement the curriculum concepts designed for student learning on the significance of clean water and sanitation. Contributing towards Goal6, the below mentioned are few activities undertaken by the department

Awareness on “No Water Wastage”

The department displays student awareness posters on “No Water Wastage” at water dispensers. This is to remind students on the significance of saving water and their role in conserving water for future generations.



Research on Clean Water and Sanitation:



Department of Environmental Sciences has conducted cleaning drive and awareness program on 2nd May 2024 at Cauvery River, Srirangapatna, Mandy District. During the cleaning drive, students and teachers of the Dept. of Environmental Sciences collected around 120-150 kg of plastics waste near the river and created awareness about not using single use plastics and importance of cleanliness near the river through interaction with the local community as well as pilgrims visited.

Ensure availability and sustainable management of water and sanitation for all

Sustainable Development Goal 6 extends beyond drinking water, sanitation, and hygiene, addressing the quality and sustainability of water resources, which are crucial for the survival of both people and the planet. The 2030 Agenda highlights the importance of water resources in sustainable development and emphasizes the critical role that improved drinking water, sanitation, and hygiene play in advancing other areas such as health, education, and poverty reduction.

To achieve the objectives of Goal 6, our institute ensures the availability of clean drinking water for all students, staff members, and visitors. Campus sanitation and hygiene are maintained by trained contract staff, with regular inspections to ensure standards are met. The details related to Goal 6 are summarized below:

1. Water supply and usage

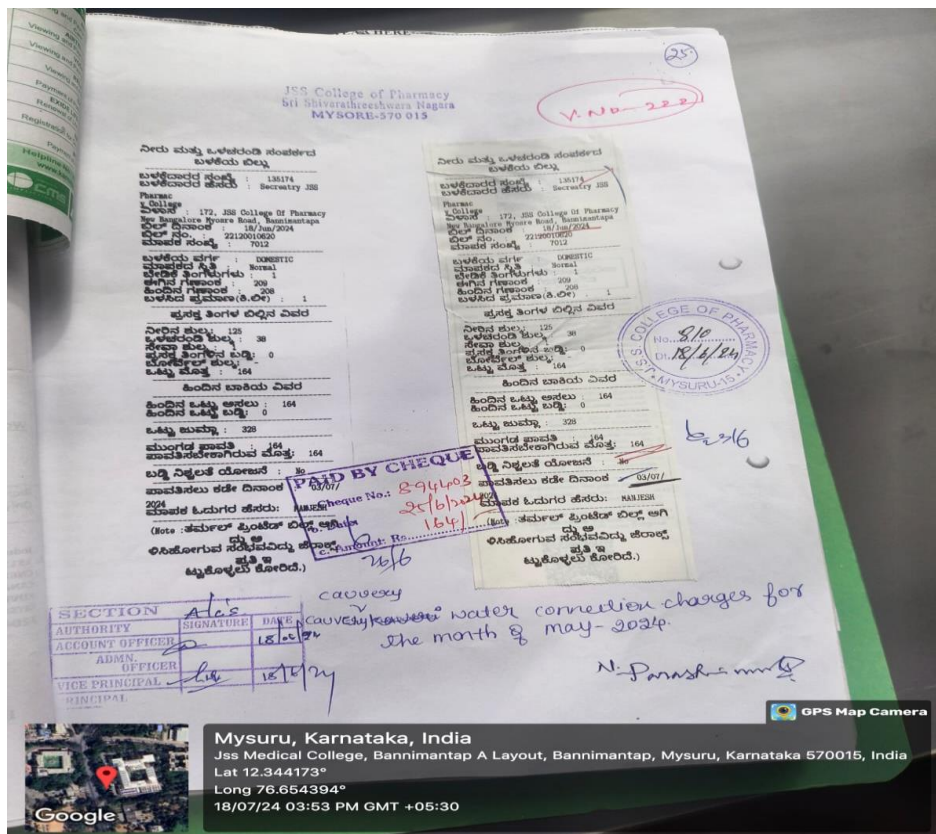
The availability of clean water is ensured through both the city corporation's water supply and in-house borewells. Our water tank has a storage capacity of 30,000 liters, which is consumed daily by a total population of 1,174. The details of the campus population, excluding visitors, are provided below:

Campus population

S. No	Details	Strength
1	Students	1018
2	Teaching staff	59
3	Non teaching staff	54
4	Administrative Staff	25
5	Security	18

Annexure 1

Water Bill for Current Month



2. Provisions for Wastewater management, sewage treatment plant and rain water harvesting:

A detailed estimate for Rainwater Harvesting and Sewage Treatment Plant was submitted to Registrar, JSS Academy of Higher Education and Research, Mysuru and Resident Engineer to

implement the same by inviting designer and contractor to submit the proposal after spot inspection. The time line set to achieve the set goal is 2023-24.

2.1 Ref: Smart Campus – Detailed Project Report Jan 2022 (pg 17-18)

Existing Facility:

Waste management:

- Bio-medical waste management service from M/s. Shree Consultants is being availed since May 2003.
- Segregation and collection of dry and wet garbage.
- Colour coded dustbins are provided across the campus.

Water management: - Water sprinklers are in place.

Required Facility:

- Rainwater Harvesting
- Sewage Treatment Plant facilities to improve the ground water level and to use for gardening.
- An awareness camp is necessary to educate on segregating degradable & non-degradable wastes.
- All water pipes can be connected to a metric meter to have a data on daily water consumption.
- Identifying damaged pipes and sprinklers and replacing them with efficient ones can save water.

Components	Already existing facilities	Proposed new facilities	Priority	Remarks
Rainwater	Rainwater harvesting	New and improved facility for increasing the ground water level	Very essential	5 Lakhs 2022-23
Sewage water	No sewage treatment plant	Wastewater treatment plant for use in gardening	Very Essential	50 Lakhs 2022-23
Sanitization	Soap and water	Hand sanitization solutions throughout the campus	Essential	1 Lakh

3. Existing facility for disposal of polluted and waste water

A dedicated facility for disposing waste water in designated sewage line is already exist in our premises, which prevents the entry of polluted water in to the water bodies. As shown in the images, this facility comprises of a storage tank of 30,000 litres equipped with 2 high pressure pumps to dispose the waste water in sewage line of Mysuru city corporation.

Also, a dedicated facility is created inside the campus to address the problem of waste water

generated by the local community at the vicinity of our campus where no provision for the drainage is made. This is put in place to address better sanitation inside the campus and its surroundings.

Annexure 2

Waste water storage facility

Storage tank (30,000 Litre)



Pumps for disposing waste water into the sewage line

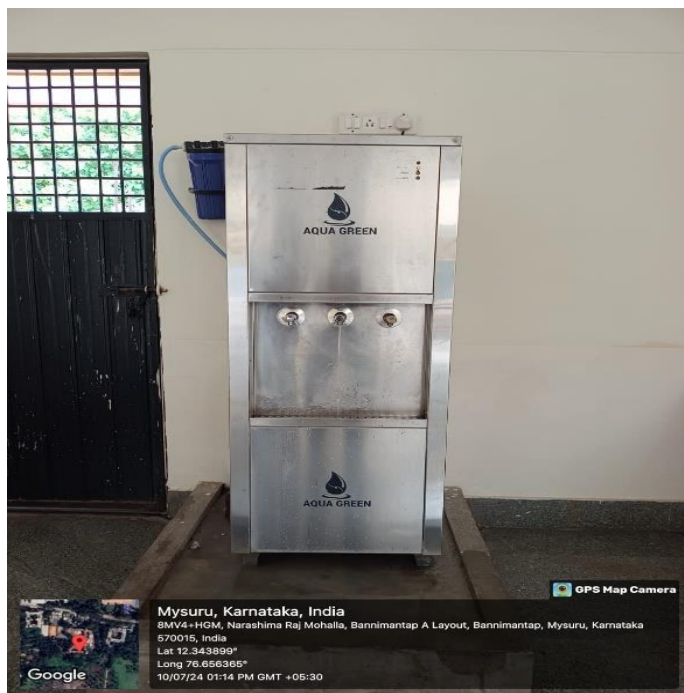
4. Availability of free clean drinking water to students, staff and visitors:

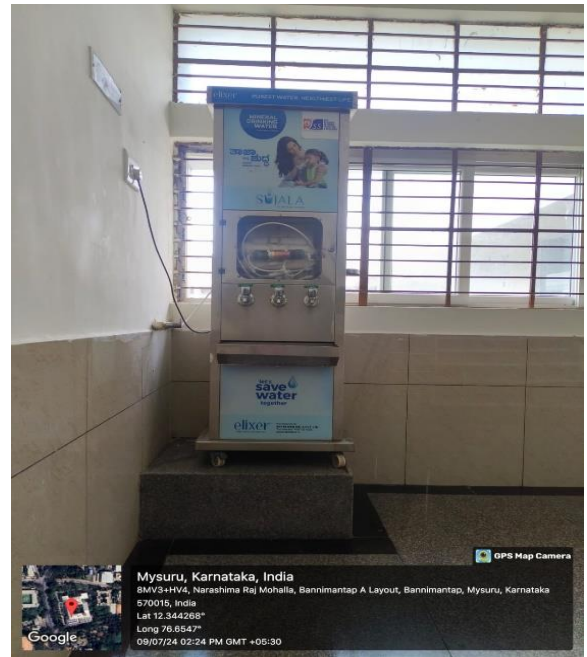
The campus is equipped with two 500 LPH RO water systems and three 300 LPD RO water systems to provide drinking water facilities for students, staff, and visitors at the college campus, boys' hostel, and girls' hostel. These RO water plants undergo periodic maintenance and quality testing to ensure the water produced is potable. Water from borewells is also subjected to regular testing.

An external agency, CADD Solutions Technologies Pvt. Ltd., conducts testing of water from all sources. This testing includes chemical parameters, as per the APHA 23rd edition, and microbiological sampling to ensure potability. All sources of potable water are tested twice a year.

Annexure 3

A few representative details are appended below:





Physico-chemical parameters

DATA SHEET

Water Quality analysis Report

Name of the customer/Place	JSS AHER campus, Mysuru
Name of the city	Mysuru
Date of sample collected	23.05.2023
Date of sample analysis	23.05.2023 to 1.06.2023
Application purpose	Drinking/Domestic use

Date Tested: June 12, 2023

Sample Number	Sample description
WATER SAMPLES OF JSSMI CAMPUS	
1	Inlet water from VVWS to main GL sump
2	Water sample of main GL sump (mix of borewell & VVWS)
3	Main RO water (treated) of JSSMI plant
4	Borewell @ teak plantation, near SLS lecture halls block
5	Drinking water @ SLS lecture hall block
6	Drinking water @ Food court
7	Drinking water @ JSS MC
8	Drinking water @ JSS DCH
9	Borewell @ Rear side of SBI bank
10	Borewell @ Southeast side of JSSMI campus
11	Borewell in front of AHER Admin Annex building
12	Drinking water @ JSS AHER Admin annex dining area.
13	Drinking water @ JSS AHER old dining hall
14	Drinking water @ JSS AHER examination section
WATER SAMPLES OF GIRL'S HOSTEL, JSSMC	
15	Borewell @ rear side of Girl's hostel 'D' block
16	Drinking water @ Girl's hostel 'D' block
17	Drinking water @ Girl's hostel 'C' block
18	Drinking water @ Girl's hostel mess block
WATER SAMPLES OF BOY'S HOSTEL, JSSMC	
19	Drinking water @ Boy's hostel mess block
20	Drinking water @ Boy's hostel E block
21	Inlet water from VVWS @ Boy's hostel premises
WATER SAMPLES OF GUEST HOUSE @ JSSMI CAMPUS	
22	Inlet water from VVWS to sump
23	Guest House Sump 2 (Treated water using softner)
24	Guest house-near kitchen drinking water
25	Borewell water (Water supplying to Guest House, @SE)
WATER SAMPLES OF STUDIO APARTMENT, SS NAGAR, MYSURU	
26	Inlet water from VVWS to sump
27	-
28	Drinking water from dispenser
WATER SAMPLES OF STAFF QUARTERS (CITB HOUSES), SS NAGAR, MYSURU	
29	Water sample of UG sump of any one flat
30	Borewell water sample
WATER SAMPLES OF JSS COLLEGE OF PHARMACY, MYSURU	
31	Borewell near main gate security room

32	Inlet water from VVWS @ north side of the college
33	Drinking water @ college building
34	Borewell in front of Girl's Hostel
35	Borewell of Girl's Hostel (NE corner)
36	RO water @ Girl's hostel
37	-
38	Borewell in front of Boy's hostel
39	-
40	Drinking water @ Boy's hostel
WATER SAMPLES OF CRECHE BUILDINGS, SS NAGAR, MYSURU.	
41	Water sample of Borewell

Std. Ref.	pH	Turbidity (NTU)	Conductivity (umho/cm)	Total dissolved solids (ppm)	Total alkalinity (mg CaCO ₃ /L)	Chloride (Cl mg/L)	Total Hardness (mg/L as CaCO ₃)	Calcium Hardness (mg/L as CaCO ₃)	Nitrate (NO ₃ , mg/L)	Sulphate (SO ₄ ²⁻ , mg/L)	Fluoride (F, mg/L)	Total Bacteria	E.coli
1	7.45	0.01	32.83	22	184	23.49	136	64	0.069	5.108	0.029	3	0
2	11.61	0.06	700	469	6240	3184	40	12	1.786	22.53	0	3	0
3	7.74	0.09	8.95	6	48	5.99	8	8	0.048	0.376	0.026	1	0
4	6.56	0.08	19.40	13	320	83.47	308	184	0.598	59.96	0.123	30	0
5	7.30	0.01	10.45	7	20	2.49	12	4	0.017	0.496	0.029	3	0
6	7.20	0.01	8.98	6	32	3.99	12	12	0.013	0.739	0.044	2	0
7	7.15	0.01	7.46	5	28	3.49	8	4	0.022	0.008	0.031	1	0
8	7.35	0.9	0.0014	0	16	0.49	4	4	0.012	0.009	0.023	2	0
9	6.54	0.04	25.37	17	476	79.47	452	212	0.983	30.441	0.041	8	0
10	6.70	0.06	25.22	17	500	41.48	392	184	0.510	7.636	0.075	16	0
11	6.77	0.06	23.88	16	480	43.98	380	184	0.352	13.668	0.031	16	0
12	7.33	0.09	17.91	12	40	12.49	12	4	0.027	0.426	0.0009	15	0
13	7.06	0.01	10.44	7	28	19.99	8	4	0.012	0.752	0.005	13	0
14	7.02	0.06	10.59	7	36	21.99	12	4	0.015	0.799	0.005	12	0
15	6.51	0.08	22.39	15	380	40.98	340	216	0.861	14.935	0.054	31	0
16	7.16	0.09	8.95	6	28	27.99	8	12	0.012	0.101	0.087	8	0
17	7.11	0.08	7.46	5	8	26.49	20	8	0.007	1.078	0.014	2	0
18	7.06	0.10	7.16	5	4	11.49	12	8	0.031	0.263	0.001	5	0
19	6.95	0.03	8.95	6	28	32.98	8	4	0.007	0.298	0.026	6	0
20	7.01	0.09	7.47	5	24	35.48	8	4	0.028	0.163	0.001	5	0
21	6.96	0.01	35.82	24	168	25.99	136	72	0.038	4.891	0.005	15	0
22	7.10	0.02	34.33	23	188	24.99	148	68	0.101	4.792	0.001	32	0
23	7.01	0.02	31.34	21	376	68.97	364	184	0.745	24.675	0.015	30	0
24	7.16	0.09	14.92	10	24	21.99	4	12	0.110	0.564	0.002	6	0
25	6.65	0.08	37.31	24	500	95.47	500	248	1.011	33.651	0.013	31	0
26	7.06	0.04	44.78	30	196	22.99	140	68	0.029	5.505	0.005	60	0
28	7.11	0.10	13.43	9	32	14.49	12	4	0.014	0.614	0.004	3	0
29	7.02	0.01	40.3	27	188	23.49	152	72	0.077	5.994	0.013	39	0
30	6.78	0.05	37.83	25	356	48.98	316	200	1.101	10.074	0.015	16	0
31	6.77	0.08	26.86	18	472	89.97	448	212	1.228	32.891	0.024	21	0
32	7.35	0.01	46.27	31	180	24.49	140	68	0.002	6.074	0.002	66	0
33	6.99	0.11	17.91	12	32	16.49	8	4	0.087	0.201	0.001	8	0
34	6.72	0.07	50.75	34	568	132.45	576	284	0.601	41.355	0.005	14	0
35	6.83	0.03	4.78	30	444	83.11	428	252	1.384	11.737	0.005	16	0
36	7.08	0.02	41.79	28	100	22.99	72	40	0.291	0.652	0.001	9	0
38	6.68	0.01	40.90	27	612	153.95	624	272	0.438	11.723	0.003	21	0
40	6.89	0.03	47.76	32	124	33.98	88	44	0.108	5.532	0.0009	22	0
41	6.95	0.01	28.36	19	432	108.46	460	224	2.569	36.39		9	0

Note: 1. NS: Not Specified; BDL: Below Detection Level

2. *Values in parentheses indicate maximum permissible limit in the absence of alternative source

Remarks:

- The values of total hardness are exceeding the permissible limit in all borewells water, and it cannot be used for domestic usage directly.
- All water samples including RO treated water samples and point-of-use treatment units are slightly contaminated with bacteria due to cross contamination in the water supply system or storage system. So, all microbial contaminated water may not be used for direct drinking purposes, but water can be used for cooking and other domestic usage (other than borewell water samples). Observed high level microbial contamination in water supply by VVWS.
- E. coli* contamination was not observed in any of the water samples collected.

Recommendations:

- All drinking water samples were observed with 1-5 bacterial count due to microbial biofilms or cross contamination in pipeline networks within the treatment unit and storage levels. Recommended for frequent servicing the treatment unit.


Hardness levels in all borewells water are exceeding the permissible limit, recommended for softening processes or RO treatment before usage especially for drinking, cooking and domestic usage and to avoid scaling in the pipelines and floors.

Water sample collected from softener also showed slightly higher hardness than the permissible level and softener unit need to be regenerated or checked the treatment efficiency frequently (*Kind attention and same result was observed during April 2023 result*).

Tested and verified by

✓
Mr. Jijoe Samuel Prabagar
PhD research scholar
Department of Environmental Sciences

Verified and validated by


Dr. Shivaraju H P 12/6/2023
Associate Professor and Coordinator
Department of Environmental Sciences



Physico-chemical parameters

DATA SHEET

Water Quality analysis Report

Name of the customer/Place	JSS AHER campus, Mysuru
Name of the city	Mysuru
Date of sample collected	24.07.2023
Date of sample analysis	24.07.2023 to 26.07.2023
Application purpose	Drinking/Domestic use

Date report: July 28, 2023

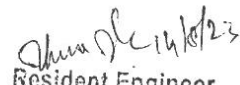
Sample No.	Sample description
	WATER SAMPLES OF JSSMI CAMPUS
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2	Water sample of main GL sump (mix of borewell & VVWS)
3	Main RO water (treated) of JSSMI plant
4	Borewell @ teak plantation, near SLS lecture halls block
5	Drinking water @ SLS lecture hall block
6	Drinking water @ Food court
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8	Drinking water @ JSS DCH
9	Borewell @ Rear side of SBI bank
10	Borewell @ Southeast side of JSSMI campus
11	Borewell in front of AHER Admin Annex building
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19	Drinking water @ Boy's hostel mess block
20	Drinking water @ Boy's hostel E block
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23	Guest House Sump 2 (Treated water using softner)
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26	Inlet water from VVWS to sump
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35	Borewell of Girl's Hostel (NE corner)
36	RO water @ Girl's hostel
38	Borewell in front of Boy's hostel
40	Drinking water @ Boy's hostel
	WATER SAMPLES OF CRECHE BUILDINGS, SS NAGAR, MYSURU
41	Water sample of Borewell

Std. Ref.	pH	Turbidity (NTU)	Conductivity (umho/cm)	Total dissolved solids (ppm)	Total alkalinity (mg CaCO ₃ /L)	Chloride (Cl mg/L)	Total Hardness (mg/L as CaCO ₃)	Calcium Hardness (mg/L as CaCO ₃)	Nitrate (NO ₃ , mg/L)	Sulphate (SO ₄ ²⁻ , mg/L)	Fluoride (F ⁻ , mg/L)	Total Bacteria	E.coli
	6.5-8.5	1(5)*	-	500 (2000)*	200 (600)*	250 (1000)*	200 (600)*	75 (200)*	45 (No relaxation)*	200 (400)*	1 (1.5)*	Nil/100ml	0
1	7.53	0.02	37.31	25	180	35.99	213	112	0.157	20.2	0.091	95	0
2	6.97	0.06	8.95	6	324	54.98	284	120	1.984	32.05	0.113	122	0
3	7.83	0.12	10.49	7	36	27.49	44	8	0.065	1.5	0.097	187	0
4	-	-	-	-	-	-	-	-	-	-	-	-	0
5	7.85	0.02	8.95	6	32	32.48	36	8	0.051	7.95	0.104	42	0
6	7.96	0.04	8.95	6	20	17.99	36	4	0.049	7.95	0.081	134	0
7	7.95	0.01	7.46	5	28	21.99	64	16	0.074	7.95	0.069	74	0
8	7.88	0.09	5.97	4	52	19.49	20	24	0.054	7.95	0.072	278	0
9	6.86	0.06	19.40	13	460	49.48	396	188	0.096	74.3	0.097	151	0
10	7.01	0.05	20.89	14	368	34.98	280	152	0.151	43	0.116	>300	0
11	7	0.02	20.90	14	356	37.48	304	136	0.894	40.55	0.111	86	0
12	7.12	0.11	23.88	16	148	19.99	152	48	0.564	16.05	0.112	198	0
13	7.63	0.03	17.91	12	44	9.99	32	12	0.049	0.45	0.072	178	0
14	7.59	0.06	11.94	8	36	19.99	48	8	0.025	7.95	0.045	354	0
15	6.82	0.05	22.39	15	320	55.98	364	204	0.097	35.25	0.092	261	0
16	7.88	0.02	13.43	9	32	18.49	72	4	0.056	0.55	0.056	29	0
17	7.86	0.08	7.46	5	32	19.99	60	4	0.011	1.7	0.069	148	0
18	7.96	0.08	10.50	7	28	19.49	36	16	0.056	1.05	0.071	0	0
19	7.87	0.06	8.95	6	16	18.99	56	8	0.047	1.7	0.081	79	0
20	8.01	0.03	8.95	6	32	19.99	20	12	0.012	1.75	0.072	0	0
21	11.19	0.05	32.83	22	184	26.49	152	88	0.075	2.45	0.059	>300	0
22	7.56	0.04	35.82	24	180	25.49	172	92	0.037	14.15	0.054	105	0
23	7.1	0.05	16.41	11	244	33.98	200	108	0.152	26.75	0.055	3	0
24	7.91	0.06	7.46	5	28	20.49	48	4	0.046	1.1	0.028	7	0
25	6.91	0.06	14.92	10	444	63.48	328	332	0.158	73.55	0.069	159	0
26	7.21	0.07	26.86	18	168	27.49	172	92	1.011	17.2	0.034	179	0
27	-	-	-	-	-	-	-	-	-	-	-	-	0
28	7.87	0.06	10.49	7	24	27.49	56	8	0.029	1.4	0.051	0	0
29	7.16	0.09	34.33	23	188	27.49	224	108	0.014	14	0.121	317	0
30	6.96	0.03	31.34	21	300	36.98	260	176	0.077	31	0.120	133	0
31	6.8	0.04	31.34	21	460	89.97	438	216	1.184	80.7	0.009	41	0
32	7.08	0.07	35.82	24	180	29.99	176	84	0.697	14	0.005	7	0
33	7.67	0.06	13.43	9	24	21.99	48	8	0.013	1.05	0.010	28	0
34	6.72	0.09	32.83	22	536	110.46	488	252	0.087	87.75	0.004	>300	0
35	6.83	0.11	32.83	22	412	84.97	400	236	0.561	74.4	0.001	67	0
36	7.34	0.06	40.3	27	88	19.99	92	44	0.024	12.65	0.002	0	0
37	-	-	-	-	-	-	-	-	-	-	-	-	0
38	6.70	0.05	34.33	23	660	153.95	488	276	0.587	43.95	0.006	>300	0
39	-	-	-	-	-	-	-	-	-	-	-	-	0
40	7.76	0.02	23.88	16	40	13.49	48	20	0.554	16.95	0.004	14	0
41	6.91	0.06	34.33	23	408	61.48	440	220	0.189	82.15	0.0001	101	0

Note: 1. NS: Not Specified; BDL: Below Detection Level
2. *Values in parantheses indicate maximum permissible limit in the absence of alternative source

Remarks:

- The values of total hardness are exceeding the permissible limit in all borewells water, and it cannot be used for domestic usage directly.
- All water samples including RO treated water samples and point-of-use treatment units are slightly contaminated with bacteria due to cross contamination in the water supply system or storage system. So, all microbial contaminated water may not be used for direct drinking purposes, but water can be used for cooking and other domestic usage (other than borewell water samples). Observed high level microbial contamination in water supply by VVWS as well as few borewell water.
- E. coli contamination was not observed in any of the water samples collected.



Resident Engineer
JSS Academy of Higher Education & Research
Sri Shivarathreeswara Nagara,
MYSURU-576 015

5. Standards to minimise the usage of water


Recommendations:

1. All drinking water samples were observed with 1-5 bacterial count due to microbial biofilms or cross contamination in pipeline networks within the treatment unit and storage levels. Recommended for frequent servicing the treatment unit.
2. Hardness levels in all borewells water are exceeding the permissible limit, recommended for softening processes or RO treatment before usage especially for drinking, cooking and domestic usage and to avoid scaling in the pipelines and floors.
3. Water sample collected from softener also showed slightly higher alkalinity and calcium hardness than the permissible level and softener unit need to be regenerated or checked the treatment efficiency frequently (Kind attention and same result was observed during June 2023 result).

Tested and verified by


Mr. Jijoe Samuel Prabagar & Ms. Divya V. K. D
 PhD research scholar
 Department of Environmental Sciences

Verified and validated by


Dr. Shivaraju H P
 Associate Professor and Coordinator
 Department of Environmental Sciences

Water closets and Urinals flow rate details were gathered and recommendations were made in order to minimize the flow rate of water from taps and flushes which is going to reduce water usage across the campus.

WATER EFFICIENCY MEASURES

WEM02* Water-efficient Faucets for Private Bathrooms: 2 L/min
 Base Case Value: 8 L/min
 Faucet Type: Faucets with Aerators | Flow Rate (...): 2 | Hot Water (...): Yes

WEM03* Water-efficient Faucets for Public Bathrooms: 2 L/min
 Base Case Value: 8 L/min
 Faucet Type: Faucets with Aerators | Flow Rate (...): 2 | Hot Water (...): Yes

WEM04* Efficient Water Closets for All Bathrooms: 6 L/High volume flush and 3 L/Low volume flush
 Base Case Value: Single flush, 8 L/Flush
 Type Of Wa...: Dual Flush | High Volum...: 6 | Low Volume...: 3

WEM05* Efficient Water Closets for Public Bathrooms: 6 L/High volume flush and 3 L/Low volume flush
 Base Case Value: Single flush, 8 L/Flush
 Type Of Wa...: Dual Flush | High Volum...: 6 | Low Volume...: 3

WEM07 Water-efficient Urinals: 2 L/Flush
 Base Case Value: 4 L/Flush
 Flush Volum...: 2

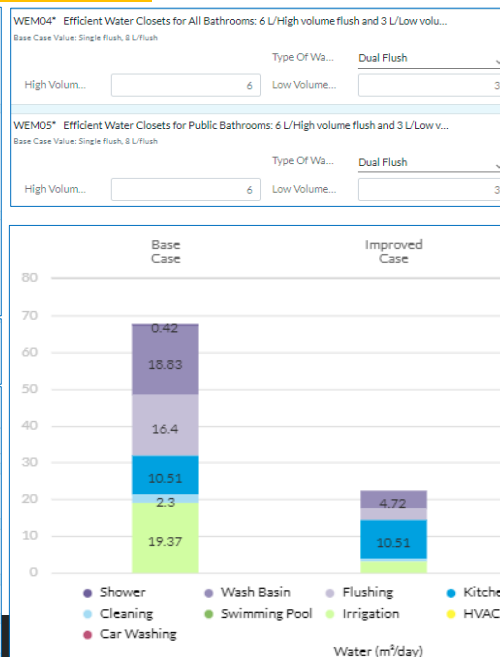
WEM13 Water-efficient Landscape Irrigation System: 4 L/m²/day
 Base Case Value: 6 L/m²/day
 Average Wa...:

WEM14 Rainwater Harvesting System: 50% of Roof Area Used for Collection
 Base Case Value: No Rainwater Harvesting

WEM15 Waste Water Treatment and Recycling System: 100% Treated
 Base Case Value: No Water Recycling System

WEM16 Condensate Water Recovery: 100% Recovery

WEM17 Smart Meters for Water



62.54% Meets EDGE Water Standard

WATER EFFICIENCY MEASURES

Water Measures	JJS Medical College	Required to Achieve 20% and more
Water efficient faucets for private bathrooms	9.25 LPM	It is suggested to install water conservative fittings with aerators and restrict water consumptions to 2LPM
Water efficient faucets for public bathrooms	9.25 LPM	It is suggested to install water conservative fittings with aerators and restrict water consumptions to 2LPM
Efficient water closet for all bathrooms	No information	It is recommended to install efficient water closets (dual flush) of 6L/flush for high volume and 3 L/flush for low volume
Efficient water closet for public bathrooms	No information	It is recommended to install efficient water closets (dual flush) of 6L/flush for high volume and 3 L/flush for low volume
Water efficient urinals	No information	It is necessary to install water efficient urinals of 0.5 L/flush
Water efficient Irrigation System	No information	It is advisable to install water efficient irrigation system like drip irrigation with reduce law area and recommended to have native species
Rainwater Harvesting System	Doing	It is recommended to harvest 50% of the roof rainwater
Wastewater treatment & Recycling System	Not installed	It is suggested to treat the wastewater by 100% and it can be reused for landscaping and flushing purpose
Smart meters for water	Not installed	It is recommended to install separate meters for Borewell, Rainwater, Municipal and treated water to monitor the water usage pattern.



62.5% Savings

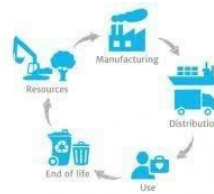
62.54% Meets EDGE Water Standard



74%



62.5%



97%

ENERGY WATER MATERIAL



Meets EDGE Energy, Water and Material Standards

EDGE Advanced

Recommendation

ENERGY WATER

Measures	Make/Model	Specification
Ceiling fan	Atomberg	30W
LED Lights	1. Lighting technology 2. Havells 3. Philips 4. Regent	20W
Roof SRI Paint	1. Asian 2. Berger 3. Dulux	SRI ≥ 85 Above

Measures	Make/Model	Specification
Washbasin Faucets	1. Hindware 2. Parryware 3. Jaquar	2 L/min
Water closets	1. Hindware 2. Parryware 3. Jaquar	3L/low volume flush & 6L/High volume flush
Urinals	1. Hindware 2. Parryware 3. Jaquar	2L/flush

6. Use of drought-tolerant plants in garden to minimize water usage:

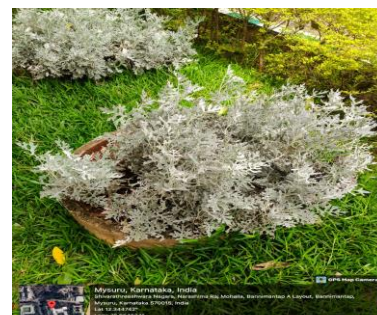
We have six variety of drought – tolerant plants/ trees which are grown at multiple places in our garden area. The details of plants and their images are shown below:

BOTANICAL NAME: Cineraria martima

FAMILY : Compositae

PARTS USED : Whole plant

USES : Eye problem, Cataract



BOTANICAL NAME: Aloe vera

FAMILY : Liliaceae

PARTS USED : leaves

USES: Laxative and purgative

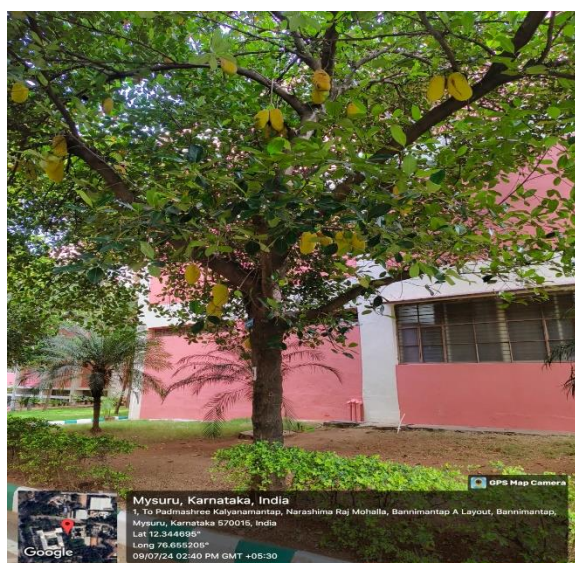


BOTANICAL NAME : Artocarpus heterophyllus

FAMILY : Moraceae

PARTS USED : Roots,fruits,wood and latex

USES : Skin disease, Anthelmintic, Stomach compliant



BOTANICAL NAME :Terminalia arjuna

FAMILY: Combrataceae

PARTS USED: Bark

USES: Cardiotonic,Astringent



7. Creating awareness among local communities

Report on Awareness program on epidemic diseases

NSS Unit JSS College of Pharmacy, Mysuru in association with Community medicine JSS Medical College organized awareness program epidemic diseases on 8th April 2024 at Sri Rajendra Auditorium at 4.30pm. The chief guest for this program was Dr Amoghashree, Assistant Professor, Department of Community Medicine, JSS Medical College, Mysuru. She sensitizes Teaching staff, non-teaching staff, NSS Student volunteers and Hostel cook on definitions, epidemiology status, preventive measures, pathophysiology, pharmacological and non-pharmacological management, prognosis of cholera / other epidemic diseases. Overall, the awareness program was very useful for the teaching, non-teaching staff, NSS volunteers and Hostel cook.



8. Report on SDG 6 Event: Drawing Competition on “World Water Day”

1. Introduction

Purpose and Objectives

On March 22, 2024, a drawing competition was held at JSS College of Pharmacy, Mysuru, to mark World Water Day. The event aimed to raise awareness about SDG 6, focusing on the theme of water scarcity. The primary objectives were to engage students in creative expression, highlight the importance of water conservation, and inspire actionable solutions to tackle water scarcity.

2. Participants

Participant Demographics The competition saw participation from 25 students across different programs: B.Pharm, Pharm D, and D.Pharm. The diverse group brought various perspectives and artistic interpretations to the theme.

3. Event Organization

Conductors of the Program The drawing competition was organized and conducted by Dr. Vikas Jain and Mr. Rajaguru A. Their efforts ensured a well-structured event that facilitated student engagement and creativity.

4. Methodology

Approach and Tools Used The competition was structured as follows:

- **Theme Announcement:** Participants were briefed on the theme of water scarcity and its relevance to SDG 6.
- **Drawing Session:** Students were given materials and a set duration to create their drawings, reflecting their understanding and ideas on water scarcity.
- **Evaluation Criteria:** Drawings were evaluated based on creativity, relevance to the theme, and the clarity of the message conveyed.

5. Findings and Results

Key Outcomes and Insights The competition produced a variety of insightful and creative artworks, highlighting different aspects of water scarcity and potential solutions. Common themes included:

- **Conservation:** Illustrations of how saving water in daily activities can make a significant impact.
- **Pollution:** Drawings depicting the effects of pollution on water sources and the importance of keeping water bodies clean.
- **Innovation:** Artistic representations of innovative technologies and practices to address water scarcity.

Statistical Highlights

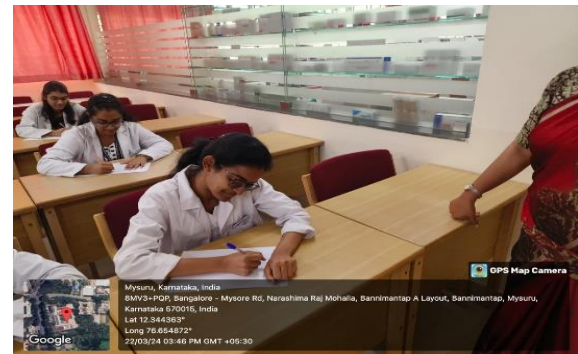
- **Participation:** 25 students from three different programs (10 from Pharm. D, 8 from B.Pharm and 7 from D. Pharm program).

- **Themes:** A diverse range of sub-themes under water scarcity, showcasing the breadth of understanding among students.

6. Case Studies

Selected Drawings

- **First Place:** A drawing by a Pharm D student that creatively depicted the journey of a water droplet from a polluted river to a purified glass of drinking water, emphasizing the importance of clean water initiatives.
- **Second Place:** An illustration by a B.Pharm student showing a community working together to harvest rainwater, highlighting collective efforts in water conservation.
- **Third Place:** A piece by a D.Pharm student that portrayed the dire consequences of water scarcity on agriculture and daily life, urging immediate action to conserve water.





9. Report on SDG 6 Event: Water Analysis Test

1. Introduction

The United Nations' Sustainable Development Goal 6 (SDG 6) aims to ensure the availability and sustainable management of water and sanitation for all by 2030. In alignment with this goal, a water analysis test event was conducted by Mr. Rajaguru A and Mr. Prawin Kumar Reddy from the Department of Pharmaceutical Biotechnology. The event aimed to assess the quality of drinking water in specific locations and educate students about water quality and safety.

2. Event Overview

Event Name: SDG 6 Water Analysis Test

Conducted By: Mr. Rajaguru A and Mr. Prawin Kumar Reddy

Department: Pharmaceutical Biotechnology

Date: 12/06/2024

Participants: II Pharm D students

Locations:

Boys Hostel Drinking Water

Girls Hostel Drinking Water

College Drinking Water

3. Methodology

The water analysis test involved the following steps:

Sample Collection:

Water samples were collected from the boys' hostel, girls' hostel, and college drinking water sources. Each sample was labeled with details such as the collection point and time.

Parameters Tested:

pH Level: Indicates the acidity or alkalinity of the water.

Turbidity: Measures the clarity of water.

Total Dissolved Solids (TDS): Represents the concentration of dissolved substances.

Biological Contaminants: Presence of harmful bacteria and microorganisms.

Chemical Contaminants: Levels of nitrates, phosphates, and heavy metals.

Testing Procedures:

Standard laboratory techniques and field test kits were used.

Each parameter was measured using calibrated equipment and following established protocols.

4. Results

Summary of Findings:

pH Levels: The pH levels were within the acceptable range for drinking water.

Turbidity: Turbidity levels were low, indicating clear water with minimal suspended particles.

Total Dissolved Solids (TDS): All samples were within the permissible limits for TDS.

Biological Contaminants: No significant biological contaminants were detected in any of the samples.

Chemical Contaminants: Chemical contaminants were within safe limits, with no dangerous levels of nitrates or heavy metals detected.

Detailed Results:

Parameter	Acceptable Range	Boys Hostel	Girls Hostel	College Water	Drinking
pH Level	6.5 - 8.5	7.2	7.4	7.1	
Turbidity (NTU)	< 5	1.0	1.2	0.9	
TDS (mg/L)	< 500	320	340	330	
E. coli (CFU/100mL)	0	0	0	0	
Nitrates (mg/L)	< 10	3	4	2	

5. Discussion

Water Quality: The water quality from all three sources was found to be within acceptable limits for all tested parameters. This indicates that the current water treatment and sanitation practices are effective.

Community Health: The absence of biological contaminants such as E. coli suggests that there is minimal risk of waterborne diseases from these sources.

Education and Awareness: The involvement of II Pharm D students in the testing process helped raise awareness about water quality issues and the importance of regular monitoring.

6. Recommendations

Regular Monitoring: Implement regular water quality monitoring to ensure continued safety and compliance with health standards.

Awareness Programs: Conduct periodic workshops and seminars to educate students and staff about water conservation and hygiene practices.

Infrastructure Maintenance: Ensure the maintenance and timely upgrades of water treatment facilities to prevent any future contamination.

7. Conclusion

The SDG 6 Water Analysis Test event, conducted by Mr. Rajaguru A and Mr. Prawin Kumar Reddy, successfully assessed the drinking water quality at the boys' hostel, girls' hostel, and college. The results were encouraging, showing that the water is safe for consumption. Continued efforts in monitoring and education are essential to maintain high standards of water quality and support the goals set forth by SDG 6.

8. Acknowledgments

We extend our gratitude to Mr. Rajaguru A and Mr. Prawin Kumar Reddy for organizing this important event. Special thanks to the II Pharm D students for their active participation and the Department of Pharmaceutical Biotechnology for their support and resources.





Mysuru, Karnataka, India
 8MV4+P52, Narashima Raj Mohalla, Bannimantap A Layout, Bannimantap, Mysuru, Karnataka 570015, India
 Lat 12.344408°
 Long 76.654753°
 12/06/24 10:07 AM GMT +05:30

1) Water Channel cleaning at Marlimund Bowta forest dam on safe and water for all (19.09.2023)

Today as part of 108th Jeyanthi celebration activity the NSS JSSCPO carried out a water channel cleaning at Marlimund Bowta forest dam which is one of the source of drinking water supply to the ooty town from Khandal, Fingerpost, Thalikulunda, Churchill and many village's around the forest area. The activity was carried out jointly with Ooty Municipal department Mr.Shanker Assistant Engineer had Co ordinated the activity. This is 3 kilometres stretch channel where the water starts from bowta forest top hill and with the help of the channel the water is taken to Marlimund dam. The NSS volunteers from 3rd B.Pharmacy about 40 students 28 boys and 12 girls and NSSPO Dr.B.Babu participated in the activity .The activity is one such beneficent to the local community of the region for providing drinking water source. We thank our beloved principal Dr.S.P.Dhanabal for the opportunity. We also thank Mr.Sekar and Mr.Panchu who were with us from Municipal department in assisting us to carry out the work



2) Recycle programs → Green wastes, like tree and bush trimmings, are composted and reused for fertilizer and preparation composts. → Food waste is also cut down by implementing self-serving of food by the students, so they aren't tempted to waste food. Further, the food remains are collected systematically and used for preparing composts manure in the dig wells which is used for gardening purposes. Hazardous solvent systems are recycled/disposed of safely. → The wastewater from the utility areas of the hostels and the college are subjected to treatment before being flushed into the public drainage system.

Green Policy for the use of papers → The college encourages the practices like double-sided printing and the usage of one-side papers for taking printouts. → All the internal notifications and circulars are communicated in electronic formats.



Sign board to indicate to segregate waste as Wet and Dry waste in Hostel dining hall

3) Water conservation program → Sensitizing the staff and students → The students arriving on campus and at the hostels are sensitized about water conservation in their orientation meetings. Printed stickers/labels with the slogan 'Save Water' are fixed in strategic places of the college and hostels. → Cutting back on car washing → The vehicles on the campus are washed based on the real needs rather than regular washing to save water. → Irrigation Techniques and Dual Flushing Systems → The gardens are irrigated with sprinkler systems to save the wastage of water in plantations.



The campus has planted with sapplings around for pollution free campus and to protect from landscape.

Publications

1. Thippeswamy Honne Manjunathappa, Devananda Devegowda, Nanditha Kumar Mysore, Prashanth Vishwanath, Prashanth Sathya Narayana. Association between drinking water fluoride and the serum alkaline phosphatase and phosphate levels in pregnant women and newborn infants. *Dent Med Probl.* 2023 Oct-Dec;60(4):569-575.
2. Ravindra B Malabadi, Sadiya M R., Kiran P Kolkar, Raju K Chalannavar. Biodiesel production via transesterification reaction. *Open Access Research Journal of Science and Technology.* 2023;9(2):10-21.
3. Ravindra B Malabadi, Sadiya M R, Kiran P Kolkar, Raju K Chalannavar. Biodiesel production: An updated review of evidence. *International Journal of Biological and Pharmaceutical Sciences Archive.* 2023;6(2):110-113.
4. Prashanth Kumar M Veeresh, Chaithanya G Basavaraju, Siva Dallavalasa, Preethi G Anantharaju, Suma M Natraj, Olga A Sukocheva, SubbaRao V Madhunapantula. Vitamin D3 Inhibits the Viability of Breast Cancer Cells In Vitro and Ehrlich Ascites Carcinomas in Mice by Promoting Apoptosis and Cell Cycle Arrest and by Impeding Tumor Angiogenesis. *Cancers.* 2023 Oct;15(19):8433.
5. Mohan Goudar, Shilpa Avarebeel, Roshan Nazirudeen, Vinayarani Gowda, Ms Shwetha Shree. Vitamin-d Levels Of Patients With St-elevation Myocardial Infarction And Association With In-hospital Prognosis: An Exploratory Observational Study In Southern India. *Journal Of Clinical And Diagnostic Research.* 2023;17(6):OC10-OC13.
6. Swapna Upadhyay, Mizanur Rahman, Selina Rinaldi, Jeremy Koelmel, Elizabeth Z Lin, Padukudru Anand Mahesh, Johannes Beckers, Gunnar Johanson, Krystal J Godri Pollitt, Lena Palmberg, Martin Irmeler, Koustav Ganguly. Assessment of wood smoke induced pulmonary toxicity in normal-and chronic bronchitis-like bronchial and alveolar lung mucosa models at air-liquid interface. *Respiratory Research.* 2024 Jan;25(1):49.
7. Shiva Prasad Kollur, Sushma Pradeep, C P Kavana, M R Sai Chakith, Pruthvish Reddy, Pallavi K Shekar, Aishwarya H Keerthi, Dr Chandan S. Discovery of Novel Butyrylcholinesterase Inhibitors as Potential Candidates for the Treatment of Alzheimer's Disease Caused Due to the Presence of Aluminium in Drinking Water. *Water Resources Development and Management.* 2024:119-131.
8. Dr. Rashmi S, Dr. Sunil Kumar D, Dr. Amoghashree. Enhancing Wash Infrastructure In Schools: Best Practices For Improved Menstrual Health And Hygiene Among Students. *International Journal of Scientific Research.* 2024 Apr;13(4):11-12.
9. Dr. Srinivasa Murthy D. Impact of Seasonal Variation in Temperature on Dehydration in Neonates. *Indian Pediatrics.* 2024;61:460-462.
10. Umme Hani, Mohammed Ghazwani, Yahya Alhamhoom, Veera Venkata Nishanth Goli, Spandana Tatineni, Sirajunisa Talath, Sathvik Belagodu Sridhar, Farhat Fatima, Osmani Mir Riyaz Ali Mahafez Ali, Umamaheshwari Shivaswamy, Vichitra Chandrasekaran, Dr Gurupadayya B M. Pharmacokinetics and Pharmacodynamics of a Nanostructured Lipid Carrier Co-Encapsulating Artemether and miRNA for Mitigating Cerebral Malaria. *Pharmaceuticals.* 2024;17(4):1-22.
11. Manjunatha M C, Dr Madhu B, Mr Sawant Sushant Anil, Karthik C B, Sahana K S, Mounika Sree M, Chaithra M. Remote Sensing Applications for Human Healthcare: A Review. *Indian Journal of Natural Sciences* 2024;14(82):70496-70504.
12. Ravindra B Malabadi, Kiran P Kolkar, Raju K Chalannavar, Sadiya M R, Simuzar S Mammadova, Himansu Baijnath. Role of Plant derived-medicine for controlling Cancer. *International Journal of Science and Research Archive.* 2024;11(1):2502-2539.

Research supporting SDG 6: Research on Clean Water and Sanitation (List of **publications** reflecting the research towards Clean Water and Sanitation in Vancouver style)

1. Satish Kumar J, Suresha S, Stavelin Abhinandithe K, Shiva S, Sunita C Mesta. Analysis Of Hydrochemical Characteristics And Assessment Of Groundwater Quality In Areas Surrounding Municipal Solid Dumping Yards In Southern Parts Of Bengaluru Karnataka. *International Journal of Creative Research Thoughts.* 2022; 10(11): 896-911. <http://www.ijcrt.org/papers/IJCRT2211218.pdf>



- Basavaraju s, pradeep s, ks s, abhinandithe s, aswathanarayan jb. Discriptive and multiple linear regression analysis of water quality parameters of vidyaranyapuram treatment plant: a case study. International journal of health and allied sciences. 2023;12(4):1.
<https://doi.org/10.55691/2278-344x.1047>
- Jinendra U, Nagabhushana BM, Bilehal D, Iqbal M, Amachawadi RG, Shivamallu C, et al. Encapsulated Co-ZnO nanospheres as degradation tool for organic pollutants: Synthesis, morphology, adsorption and photo luminescent investigations. Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy. 2023 Oct;299:122879.
- Divyashree NR, Revanasiddappa HosakereD, Jayalakshmi B, Iqbal M, Amachawadi RG, Shivamallu C, et al. 'Turn-ON' furfurylamine-based fluorescent sensor for Cd²⁺ ion detection and its application in real water samples. Polyhedron. 2023 Jul;238:116411. Sdg 6
- Thippeswamy H M, Nanditha Kumar M and Prashanth S N - Quantitative Data of transfer of drinking water fluoride from pregnant women to cord blood - A systematic review - Indian Journal of Natural Sciences - Oct 2023; 14(80): 63941-63948 . ISSN: 0976-0997, National
<https://tnsroindia.org.in/journals.html>

Students' projects

- Investigation of pathogenic strains present in unfiltered drinking water and it's Antibiotic resistance
- Genetic variation studies of bacterial species obtained in tap water

CLEAN WATER AND SANITATION (SDG 6)

Details Related to SDGs	Evidence with documents	Weblink to support the details
a. Research on Clean Water and Sanitation:		
Research supporting SDG 6: Research on Clean Water and Sanitation (List of publications reflecting the research towards Clean Water and Sanitation in Vancouver style)		https://jssaherdatalake.blob.core.windows.net/web-jssdch/dch-annexures-aligning-to-sdg-2024-6.1-publications.pdf
6.2 Water consumption per person		
6.2.1 Does your College & University measure the total volume of water (statistics) used in the College & University that is taken from: 1. mains supply 2. extracted from wells, rivers, lakes, or aquifers 3. rainwater harvest 4. desalinated water 5. recycled water used	Yes – Explained and attached evidence /documents	https://jssaherdatalake.blob.core.windows.net/quality/SmartCampusPolicy.pdf

<p>for gardening and sanitation</p> <p>Water consumption tracking</p>		
<p>Evidence: Weblink and details of the total volume of water used in the College from the mains supply, extracted from wells, rivers, lakes, or aquifers, rainwater harvest, desalinated water, recycled water used for gardening and sanitation.</p>		
<p>Any other Comments:</p>		
<p>6.2.2 Volume of water used in the University / College: Inbound (treated/extracted water-extracted from wells, rivers, lakes, or aquifers, rainwater harvest, desalinated water, recycled water)</p> <p>Total water consumption:</p> <p>Total number of campus population:</p> <p>Water consumption by campus population:</p>		
<p>6.3 Water usage and care</p>		
<p>6.3.1 Does your College & University have a process in place to treat wastewater?</p> <p>Wastewater treatment: water usage and care process treat wastewater</p>	<p>Yes – Explained and attached evidence /documents</p>	<p>https://jssaherstoragenew.blob.core.windows.net/jssuudstorage/udpdocs/home-page-sdg-waste-managment-policy.pdf</p>
<p>Evidence: Weblink and details of process in place to treat wastewater with supporting photographs with high resolution</p>		
<p>Any other Comments:</p>		
<p>6.3.2 Does your College & University have processes to prevent polluted water entering the water system, including pollution caused by accidents and incidents at the University / College?</p> <p>Preventing water system pollution: water usage and care process</p>	<p>Yes – Explained and attached evidence /documents</p>	<p> 6.3.2-waste water.pdf</p> <p> 6.3.2-Waste water management.pdf</p>

prevent polluted water entering water system		
Evidence: Weblink and details of process to prevent polluted water entering the water system with supporting photographs with high resolution		
Any other Comments:		
6.3.3 Does your College & University provide free drinking water for students, staff and visitors, e.g. drinking water fountains)? Free drinking water provided: water usage and care provision free drinking water	Yes – Explained and attached evidence /documents	JSS Academy of Higher Education & Research Dental College & Hospital Facilities (jssuni.edu.in)
Evidence: Weblink and details of facilities of free drinking water for students, staff, and visitors with supporting photographs with high resolution, signboards, pluck cards, displays and notices.		
Any other Comments:		
6.3.4 Does your College & University apply building standards to minimize water use? (relevant standards to be indicated) Water-conscious building standards: water usage and care building standards to minimize water use	Yes – Explained and attached evidence /documents	https://jssaherdatalake.blob.core.windows.net/quality/EnergyEfficiencyRenovationandNewBuildingPolicy.pdf
Evidence: Weblink and details supporting building standards to minimize water use with supporting photographs with high resolution, signboards, pluck cards, displays and notices.		
Any other Comments:		
6.3.5 Does your College & University plant landscapes to minimize water usage? (e.g. use	Explain and attach evidence /documents	

drought-tolerant plants) Water-conscious planting: water usage and care plant landscapes		
Evidence: Weblink and details of water usage and plant landscapes to minimize water usage with supporting photographs with high resolution, signboards, pluck cards, displays and notices. Details of drought tolerant plants/xerophytic plants/ herbs/trees grown in campus supporting water conservation.		
Any other Comments:		
6.4 Water reuse		
6.4.1 Does your College & University have a policy to maximize water reuse across the University / College? Water reuse/recycle policy.	Yes – Explained and attached evidence /documents	https://jssaherdatalake.blob.core.windows.net/quality/EnergyConservation%26RecyclingPolicy.pdf
6.4.2 Does your College & University measure the reuse of water across the University / College? Water reuse measurement		
Evidence: Weblink and details of policies/guidelines/strategies/schemes supporting minimum water usage across the college and mechanism to measure the reuse of water across the college with supporting photographs with high resolution.		
Any other Comments:		
Institutional Policy/Guidelines/Schemes /Strategies created (Year)?		2016
Institutional Policy/Guidelines/Schemes /Strategies reviewed (Year)?		2026

6.5 Water in the community		
<p>6.5.1 Does your College & University provide educational opportunities for local communities to learn about good water management?</p> <p>Water management educational opportunities</p> <p>6.5.2 Does your College & University actively promote conscious water usage on campus, and in the wider community?</p> <p>Promoting conscious water usage</p>	-NA-	-NA-
<p>Evidence: Weblink and details of educational opportunities and activities promoting conscious water usage for local communities and in campus to learn about good water management</p> <p>Eg: World water day awareness program, environmental awareness program, NSS program, outreach activities, workshops, seminars, educational books/pamphlets, readouts and any other material provided to local community to learn about good water management with supporting photographs with high resolution.</p>		
<p>Any other Comments:</p>		
<p>6.5.3 Does your College & University support water conservation off campus?</p> <p>Off-campus/community water conservation support</p>	-NA-	-NA-
<p>Evidence: Weblink and details of activities supporting water conservation off campus with supporting photographs with high resolution, signboards, pluck cards, displays and notices.</p>		
<p>Any other Comments:</p>		
<p>6.5.4 Does your College & University as a body, where water is extracted (for example from aquifers, lakes or rivers), utilise sustainable water extraction technologies on associated College &</p>	-NA-	-NA-

University grounds on and off campus? Sustainable water extraction on campus: water in community utilizes water extraction technologies		
Evidence: Weblink and details of supporting sustainable water extraction technologies in the campus with supporting photographs with high resolution.		
Any other Comments:		
6.5.5 Does your College & University cooperate with local, regional, national or global governments on water security? Cooperation on water security	-NA-	-NA-
Evidence: Weblink and details of activities/policies/strategies showing the cooperation of the college with local, regional, national or global governments on water security with supporting photographs with high resolution.		
Any other Comments:		

CLEAN WATER AND SANITATION (SDG 6)

Details Related to SDGs	Evidence with documents	Weblink to support the details
6.2 Water consumption per person		
6.2.1 Does your College & University measure the total volume of water (statistics) used in the College & University that is taken from: <ol style="list-style-type: none"> 1. mains supply 2. extracted from wells, rivers, lakes, or aquifers 3. rainwater harvest 4. desalinated water 5. recycled water used for gardening and sanitation Water consumption tracking	Explain and attach evidence /documents supporting your explanation	
Evidence: Weblink and details of the total volume of water used in the College from the mains supply, extracted from wells, rivers, lakes, or aquifers, rainwater harvest, desalinated water, recycled water used for gardening and sanitation.		

Any other Comments:		
6.2.2 Volume of water used in the University / College: Inbound (treated/extracted water- extracted from wells, rivers, lakes, or aquifers, rainwater harvest, desalinated water, recycled water) Total water consumption: Total number of campus population: Water consumption by campus population:		
6.3 Water usage and care		
6.3.1 Does your College & University have a process in place to treat wastewater? Wastewater treatment: water usage and care process treat wastewater	Yes	
Evidence: Weblink and details of process in place to treat wastewater with supporting photographs with high resolution		
Any other Comments:		
6.3.2 Does your College & University have processes to prevent polluted water entering the water system, including pollution caused by accidents and incidents at the University / College? Preventing water system pollution: water usage and care process prevent polluted water entering water system	Explain and attach evidence /documents supporting your explanation	
Evidence: Weblink and details of process to prevent polluted water entering the water system with supporting photographs with high resolution		
Any other Comments:		
6.3.3 Does your College & University provide free drinking water for students, staff and visitors, e.g. drinking water fountains)? Free drinking water provided: water usage and care provision free drinking water	Yes	
Evidence: Weblink and details of facilities of free drinking water for students, staff, and visitors with supporting photographs with high resolution, signboards, pluck cards, displays and notices.		
Any other Comments:		
6.3.4 Does your College & University apply building standards to minimize water use?	Explain and attach evidence /documents supporting your	

relevant standards to be indicated) Water-conscious building standards: water usage and care building standards to minimize water use	explanation	
Evidence: Weblink and details supporting building standards to minimize water use with supporting photographs with high resolution, signboards, pluck cards, displays and notices.		
Any other Comments:		
6.3.5 Does your College & University plant landscapes to minimize water usage? (e.g. use drought-tolerant plants) Water-conscious planting: water usage and care plant landscapes	Yes FLS has lawn and drought-tolerant plants around the building.	https://www.jssuni.edu.in/jssaaher/Sc hool-of-LifeSciences-Mysuru/img/flsm-banner-01.jpg https://www.jssuni.edu.in/jssaaher/Sc hool-of-LifeSciences-Mysuru/img/flsm-banner-02.jpg https://www.jssuni.edu.in/JSSWeb/WebShowFromDB.aspx?MODE=SMD&PID=10000&MID=10500&SMID=0&CID=0&DID=0&PAGESEARCHFORW HATID=3834
Evidence: Weblink and details of water usage and plant landscapes to minimize water usage with supporting photographs with high resolution, signboards, pluck cards, displays and notices. Details of drought tolerant plants/xerophytic plants/ herbs/trees grown in campus supporting water conservation.		
Any other Comments:		
6.4 Water reuse		
6.4.1 Does your College & University have a policy to maximize water reuse across the University / College? Water reuse/recycle policy.	Yes	https://jssaaherdata.lake.blob.core.windows.net/quality/SmartCampusPolicy.pdf

6.4.2 Does your College & University measure the reuse of water across the University / College? Water reuse measurement		
Evidence: Weblink and details of policies/guidelines/strategies/schemes supporting minimum water usage across the college and mechanism to measure the reuse of water across the college with supporting photographs with high resolution.		
Any other Comments:		
Institutional Policy/Guidelines/Schemes/Strategies created (Year)?	03.06.2016	
Institutional Policy/Guidelines/Schemes/Strategies reviewed (Year)?	03.06.2023	
6.5 Water in the community		
6.5.1 Does your College & University provide educational opportunities for local communities to learn about good water management? Water management educational opportunities	Yes	
6.5.2 Does your College & University actively promote conscious water usage on campus, and in the wider community? Promoting conscious water usage		
Evidence: Weblink and details of educational opportunities and activities promoting conscious water usage for local communities and in campus to learn about good water management Eg: World water day awareness program, environmental awareness program, NSS program, outreach activities, workshops, seminars, educational books/pamphlets, readouts and any other material provided to local community to learn about good water management with supporting photographs with high resolution.		
Any other Comments:		
6.5.3 Does your College & University support water conservation off campus? Off-campus/community water conservation support	Yes	
Evidence: Weblink and details of activities supporting water conservation off campus with supporting photographs with high resolution, signboards, pluck cards, displays and notices.		

Any other Comments:		
6.5.4 Does your College & University as a body, where water is extracted (for example from aquifers, lakes or rivers), utilize sustainable water extraction technologies on associated College & University grounds on and off campus? Sustainable water extraction on campus: water in community utilizes water extraction technologies	Explain and attach evidence /documents supporting your explanation	
Evidence: Weblink and details of supporting sustainable water extraction technologies in the campus with supporting photographs with high resolution.		
Any other Comments:		
6.5.5 Does your College & University cooperate with local, regional, national or global governments on water security? Cooperation on water security	Explain and attach evidence /documents supporting your explanation	
Evidence: Weblink and details of activities/policies/strategies showing the cooperation of the college with local, regional, national or global governments on water security with supporting photographs with high resolution.		
Any other Comments:		

Details Related to SDGs	Evidence with documents	Weblink to support the details
Water consumption per person		
Does your College & University as a body measure the total volume of water used in the College & University that is taken from mains supply, desalinated, or extracted from rivers, lakes, or aquifers?	Yes	Annexure 1
Evidence	Section 1	
Comment	Water is consumed judiciously in JSS College of Pharmacy, Mysuru	
Volume of water used in the University / College: Inbound (treated/extracted water)	30000 litres per day	
Number of campus population	1174	
Water usage and care		

Does your College & University as a body have a process in place to treat waste water?	Yes the process of establishing Sewage treatment plant is initiated with the completion target in Year 2022-23	
Evidence	Section 2 – Refer page number 17-18 of Smart campus proposal submitted in January 2022	
Comment	As an initiative under Smart campus drive, we have proposed the installation of a plant to treat the wastewater and sewage	
Details Related to SDGs	Evidence with documents	Weblink to support the details
Does your College & University as a body have processes to prevent polluted water entering the water system, including pollution caused by accidents and incidents at the University / College?	Yes	
Evidence	Section 3	
Comment	In section 3, we have attached the photos of facilities available to dispose of polluted water in designated sewage line. It consists of 30000-liter tank with 2 pumps. This tank helps in preventing wastewater entering into the water system.	
Does your College & University as a body provide free drinking water for students, staff and visitors, e.g. drinking water fountains)?	Yes	Annexure 2
Evidence	Section 4	
Comment	We have installed five-units of Reverse Osmosis systems in order to provide free drinking water on campus. Out of five, three units were installed in the college premises, one installed at boys' hostel and another one at girl's hostel.	Annexure 3
Does your College & University as a body apply building standards to minimise water use? (relevant standards to be indicated)	Yes, The provisions are being made in this direction	
Evidence	Section 5	

Comment	The institute is looking for Net Zero Energy Edge Certification, which includes minimization of water and energy use	
Details Related to SDGs	Evidence with documents	Weblink to support the details
Does your College & University as a body plant landscapes to minimise water usage? (e.g. use drought-tolerant plants)	Yes	https://jssuni.edu.in/jssaher/college-of-pharmacy-mysuru/pdf/list-of-medical-plants-in-herbal-garden.pdf
Evidence	Section 6	
Comment	We have four variety of drought – tolerant plants which are grown at multiple places in our garden area. The details of plants and their images are shown in section 6.	https://jssuni.edu.in/jssaher/college-of-pharmacy-mysuru/pdf/list-of-medical-plants-in-herbal-garden.pdf
Water reuse		
Does your College & University as a body have a policy to maximize water reuse across the University / College?	Yes	https://jssaherstorage.blob.core.windows.net/jssaherstorage/udpdocs/sdg-infrastructure-and-maintenance-policy-of-jssaher-supporting-sdg-2021.pdf
Evidence	Web link on infrastructure and maintenance policy	
Comment		
Policy created (yyyy)	2018	
Policy reviewed (yyyy)	-	
Does your College & University as a body measure the reuse of water across the University / College?	No	
Evidence	-	
Comment	-	
Water in the community		
Details Related to SDGs	Evidence with documents	Weblink to support the details
Does your College & University as a body provide	YES	

educational opportunities for local communities to learn about good water management?		
Evidence	Section 7	https://jssuni.edu.in/jssaher/activities-and-events/ActivityAndEventDetail.aspx?NOTICE_SID=5196
Comment	As part of NSS activity awareness program carried out each year.	
Does your College & University as a body actively promote conscious water usage on campus, and in the wider community?	Yes	
Evidence	Section 8	
Comment	As an awareness campaign, the students were motivated to participate in digital art competition during national pharmacy week celebration. Rajaguru A, lecturer of Pharmaceutical Biotechnology have conducted the awareness program with the help of students. On March 22, 2024, a drawing competition was held at JSS College of Pharmacy, Mysuru, to mark World Water Day. The event aimed to raise awareness about SDG 6, focusing on the theme of water scarcity.	Annexure 4 & 5
Does your College & University as a body support water conservation off campus?	No	
Evidence		
Comment		
Does your College & University as a body, where water is extracted (for example from aquifers, lakes or rivers), utilise sustainable water extraction technologies on associated College & University grounds on and off campus?	No	
Evidence		
Comment		
Details Related to SDGs	Evidence with documents	Weblink to support the details
Does your College & University as a body cooperate with local, regional, national or global	No	

governments on water security?		
Evidence		
Comment		

