



# ST PHILOMENA COLLEGE

Re-accredited by NAAC at "A" Grade

Affiliated to Mangalore University

Managed by Catholic Board of Education,

Mangalore Philonagar, Darbe - 574202,

Puttur, D.K. Karnataka.

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## GRENN AUDIT REPORT-2020-21

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# **ST PHILOMENA COLLEGE**

PHILONAGAR, DARBE, PUTTUR Pin: 574202

# **GREEN AUDIT REPORT**

# **2020-21**

# Green Audit Report 2020-21- St Philomena College

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## **1. Introduction:**

St Philomena College was founded in 1958 by Msgr Antony Patrao, a missionary, who conscientiously believed that education was the best means of empowerment. His conviction that the religious, spiritual, social and economic interest of the students could be best served through education made this region an educational hub. Even in the nascent stages of its growth the College showed all the signs of becoming a centre of excellence. A full-fledged centre of excellence is yet to be realized, but efforts towards this end have not ceased.

With an enviable record of growth in student enrollment, physical infrastructure and student achievements, the Institution offered itself for accreditation in 2004 to begin with and in 2010 for the II cycle. To justify an excellent social accreditation, the NAAC accredited the Institution at 'A' grade with a CGPA of 3.19 in the III cycle. Efforts are not spared to consolidate the features and functions of the Institution by the Catholic Board of Education, Diocese of Mangalore, which is the top management. The CBE has under its care 11 Degree colleges, 16 pre-university colleges, 66 high schools, 165 primary schools and 1 technical institute. Most Rev Peter Paul Saldhana, the Bishop, Diocese of Mangalore is the President of CBE.

Affiliated to Mangalore University and recognized by the UGC under 2(f) and 12B, the Institution does attempt to treat the primary stake holders in six UG programs and six PG programs to a rewarding educational experience. Fulfilling most of recommendations of the previous Peer Team and which an array of post accreditation initiatives the Institution offers itself for the IV cycle of accreditation in the academic year 2020-21

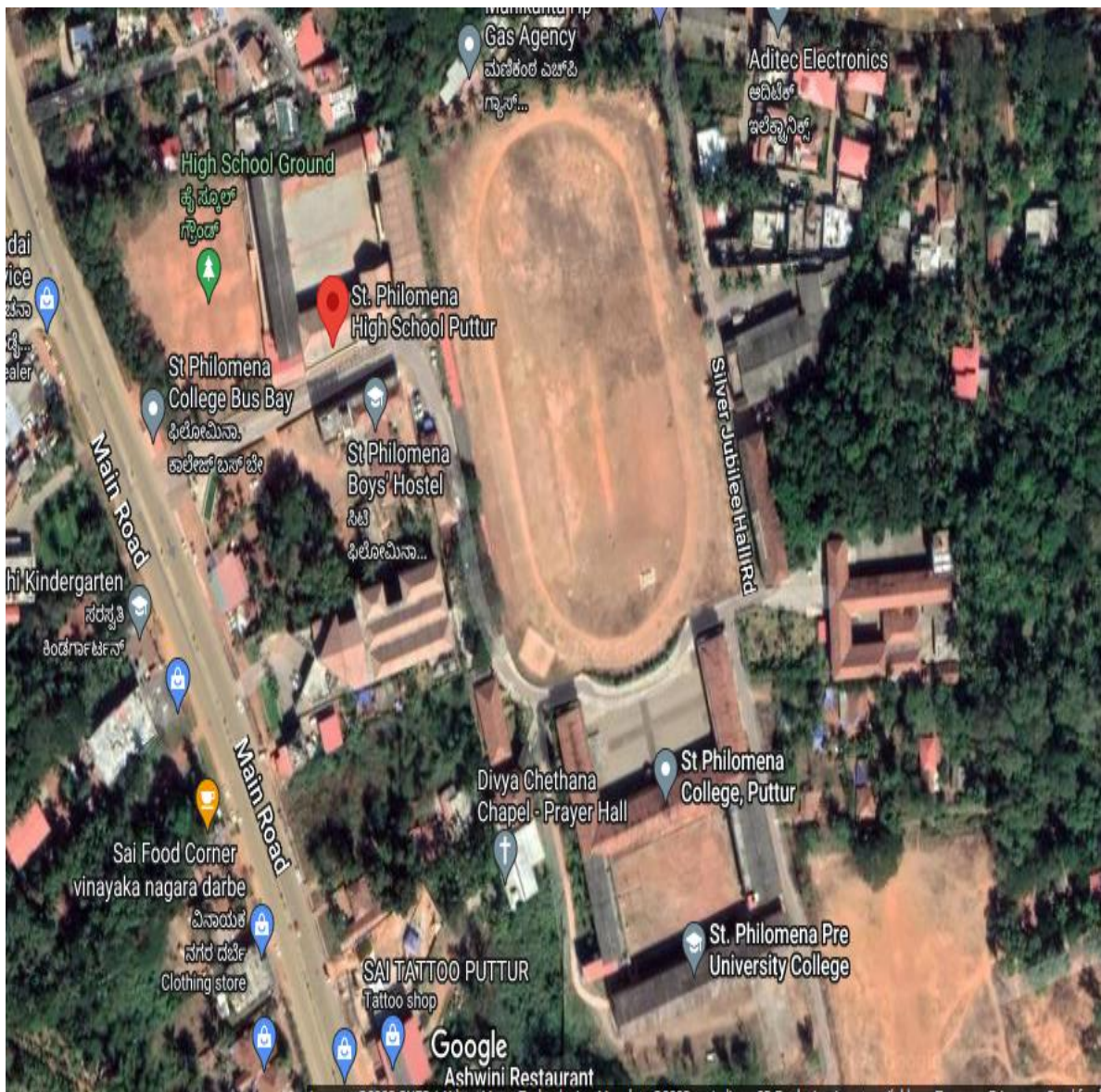
The environmental issue has become a world-wide concern in the last few decades being the focus of discussion in a variety of forums both at national and international levels. Because environmental problems are rooted in economic and social policies, they occur at all levels from local to global, and success requires action by many players over long periods of time. The activities undertaken by the colleges can create a variety of environmental impacts. Educational institutions are in a unique position to provide environmentally sustainable solutions. St Philomena College expresses its commitment to sustainability in many ways. It has undertaken a number of positive steps to reduce its environmental impacts.

The environmental audit of St Philomena College is meant to be a quantitative and qualitative way to record and present the activities of the Institution and its stakeholders. In effect, encourage & promote more sustainable way of living.

## 2. Location:

The St. Philomena College Campus located at Puttur, which happens to be the second biggest town in South Canara District. A green campus with calm and serene atmosphere, inspiring the students to achieve their goals and gain new heights in their lives. The campus is located about 2 KMs from the heart of the town.

Location	Rural
Campus area in sq. mts.	91,054.26
Built up area in sq. mts	8700.74



## **3. Vision**

To be a premier Institution for Higher Education, constantly in service to the society in the field of education and welfare.

## **4. Mission**

To educate and train the young knowledge seekers for their holistic development to make effective contribution to the society.

## **5. Objectives**

- To provide opportunities for Higher Education to the young knowledge seekers.
- To prepare the students optimize the various social resources for sustainable growth and development.
- To sensitise the students about the social needs and problems.
- To provide guidance and support for the all-round development of personality of the students.
- To help the students accomplish their career opportunities.
- To assess Environmental Performance of the Institution.
- To ascertain whether the Institution complies with the statutory requirements.
- To assess whether the activities are economical, efficient and effective.
- To Improve environmental standards.
- To encourage Reduction, Recycling and Reuse practices.
- Curriculum enrichment through practical experience.
- To enhance Institutional Profile through Demonstration of Commitment towards Environment.
- Developing an environmental ethic and value systems among stakeholders.

## **Green Audit:**

Green Audit is assigned to the Criteria 7 of NAAC, National Assessment and Accreditation Council which is a self-governing organization of India that declares the institutions as Grade A, Grade B or Grade C according to the scores assigned at the time of accreditation.

### **Benefits of Green Audit:**

If Green Audit is enforced in an effective way, then there are many advantages that could be adopted from it.

- Green Audit could help to shield the environment.
- Recognize the cost saving methods through waste minimizing and managing strategies.
- Point out prevailing and forthcoming complications.
- Authenticate conformity with the implemented laws.
- Empower the organizations to frame a better environmental performance.
- It portrays a good image of a company which helps building better relationships with the group of stakeholders.
- Enhance the alertness for environmental guidelines and duties.

## **6. OBJECTIVES OF AUDIT:**

- To promote the Environmental management system and conservation in the campus.
- To ensure overall development of campus along with safeguarding the environment.
- To reduce Energy consumption and ensure the optimum utilization of resources.
- To develop safe and clean environment.

## **7. Audit Methodology**

The audit is carried out in following steps.

- Identification of activities that have bearing on Environment.
- Identification of resources and utilities required for the Institute.
- Identify sources of pollution & assess the efficiency of the control methods.
- Identify & suggest corrective & preventive actions, if any.
- Conclusion from the audit

## **8. The areas covered in this audit**

The Institute has added many educational activities by introducing new courses over the period. There are 11 units which underwent audit as per the list below.

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- St Philomena College
- St Philomena Pre-University College
- Centre for P G Studies and Research
- St Philomena High School
- St Philomena English Medium School
- Karnataka State Open University Study Centre
- St Philomena College Hostel for Men
- St Philomena College Hostel for Women
- St Philomena High School Boys Hostel
- Silver Jubilee Memorial Hall
- St Philomena College Canteen

All these units were subjected to audit with respect to following criteria's –

- Geographical Location with green campus concept
- Floral & Faunal diversity
- Water & Wastewater Management
- Waste Management
- Energy consumption & Conservation
- Biodiversity (Floral and Faunal Diversity)
- Education & Awareness Training



## 9. GREEN POLICY



### GREEN CAMPUS POLICY

St Philomena college should demonstrate higher sensitivity and responsibility in implementing green concepts in the campus. By exercising proper control over all its activities, the college will aim to ensure sustainable use of resources and prevent wasteful or damaging practices. Although establishment and maintenance of green campus is important, spreading awareness on the green practices among students and educating stake holders is our priority.

St Philomena college will aim to manage its operations in ways that are environmentally sustainable, economically feasible and socially responsible, i.e., making the College a green campus where environment friendly practices and education combine to promote sustainable and eco-friendly practices. Therefore, this policy represents an important component of the broader sustainability strategy of the college. This document sets out the aims and objectives of the college for safeguarding the environment and details the structure for implementing and monitoring them.

## 10.Green Campus Concept

Concept of green campus program enables to conserve natural resources like water and biodiversity, optimize energy efficiency, manage waste and educate about climate change and sustainability while addressing well-being of the students. In this regard St Philomena College is conscious and committed to the environmental issues with regard to protection, conservation and sustenance of natural resources.

A Green Campus is a place where environment friendly practices and education combine to promote sustainable and eco-friendly practices in the campus. The green campus concept offers an institution the opportunity to take the lead in redefining its environmental culture and developing new paradigms by creating sustainable solutions to environmental, social and economic needs of mankind.

Extent of greenery at College Campus is above 30% of total Campus area. College Campus consists of diverse trees such as mango, jackfruit, teak, silvstaenia mahogany, sandalwood, areca and coconut trees. There are also many fruit bearing trees. The well-maintained lawns and gardens are beautiful to behold in the Campus. To prevent environmental pollution, the institution promotes greenery in the Campus. The College also has a separate Botanical Garden for the purpose of study of plants. There are dedicated staff for the maintenance of lawns and gardens. Planting is done by the students of NSS, Rovers and Rangers and Social Work students during Vana Mahotsav programme. The variety of plants provided by the Forest Department are planted.

### a) Gardens in the Institution

There are gardens and lawns in front of the College, Divya Chethana Chapel, Men's hostel, Women's hostel, Botany and Computer Laboratories.

### b) Using of Gardens:

The gardens are used by students of Botany while conducting Botanical surveys to identify the plant species. There are different types of plants in our college. Plants and trees in and around the College premises provide shade. They are used for decorative purposes too.

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Vegetables such as greens, chilies, gherkins, ridge gourd, bottle gourd, etc., are cultivated in the hostel premises.

Around 46 varieties of fruit saplings have been planted within a span of two years. A few of them are yielding now.

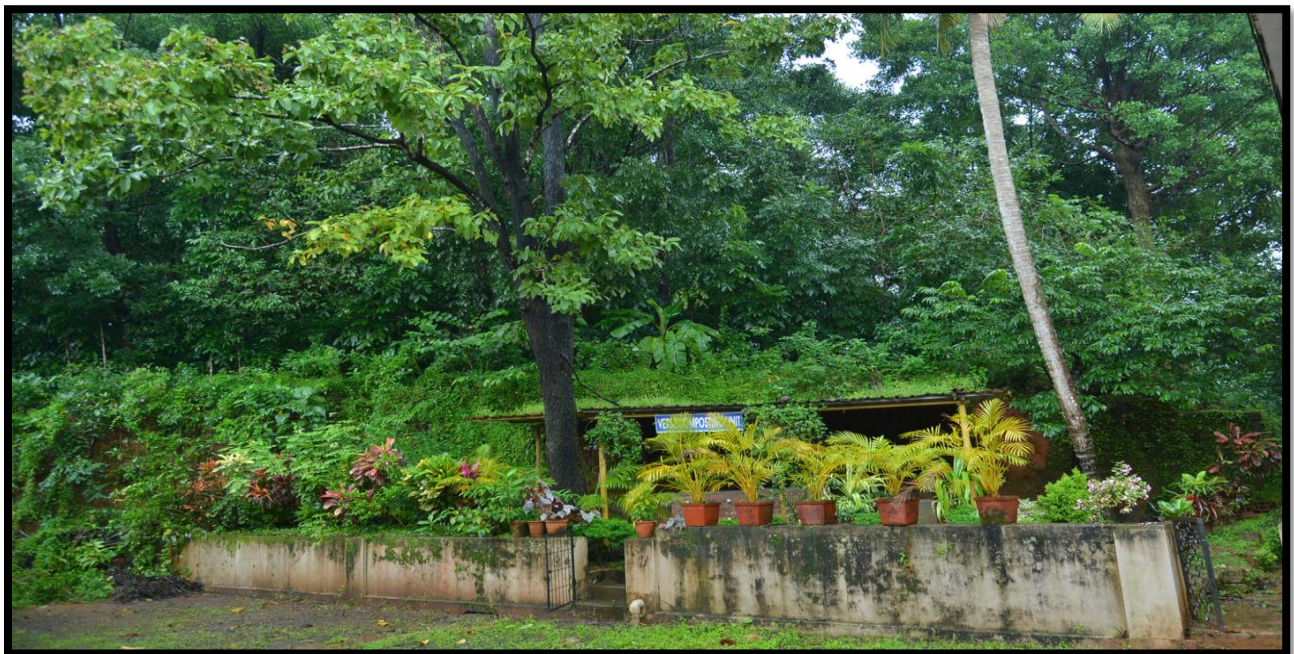
### **c) Number of Plants in the Campus:**

There are around 2000 plants consisting of 132 types. It includes Medicinal plants, flowering and non-flowering plants, fruit plants, the plant species which mainly come under perennial groups, decorative plants, etc.

### **d) Number and Species of Plants Planted by the Students:**

Students have planted twenty different species of plants every year. Several medicinal plants of different types are brought for study purposes and planted. The Botanical Garden and indoor plants in the Department of Computer Science are maintained by the respective departments.

## GREEN INITIATIVES



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## **GUPPY FISH POND**

### **OTHER GREEN INITIATIVES**

#### **1. Ban on use of Plastic**

Single-use plastic items such as plastic bottles, bags, spoons, straws and cups are banned completely and awareness is created among staff and students through orientation and display boards in the premises. To restrict the use of plastics, measures have been taken to replace plastic tea cups and glasses with steel glasses in the canteen. The staff and students are informed to use steel or copper water bottles instead of plastic bottles.



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## **2. Restricted entry of Automobiles**

The institute encourages the staff and students to take initiative for safety in vehicles, security, fuel conservation and to reduce environmental pollution. The vehicles owned by faculty or students with pollution check stickers are permitted into the campus. Random checks are made to check the validation and periodicity of this certificate. For two wheelers or four wheelers, security measures are mandatory.

**Please attach signed notice in letter head**

**Date : 23/11/2021**

### **NOTICE**

Students who are coming to college by 2-wheeler are supposed to travel on highway as per the highway rules. They are required to travel on service road and wear helmet with valid driving license also they are strictly warned to drive the vehicles at reasonable minimum speed as prescribed by road transport authority to avoid accidents. If any of the students failed to follow above instructions, they will not be allowed to enter the college premises and the vehicles will be seized, with effect from 25/11/2021.

All the students are required to co-operate in this regard by following the above instructions carefully.



### **3. Pedestrian friendly pathways**

Vehicle parking space is provided at the main entrance of the college campus. As the campus is vehicle free with some exceptions, students and staff experience comfort walking through the pedestrian friendly pathways. The internal roads are lined with trees and solar lights and they are properly maintained by the campus maintenance committee.

### **4. Go Greening Committee**

The institution has formed Eco Club of students under the guidance of faculties.

The goals of the committee are as follows.

- Environmental education through the help of gardens.
- Improving environmental standards.
- Developing an environmental ethic and value systems in young people.
- To develop a good environmental atmosphere.
- To provide environmental knowledge to the students.
- Planting fruit trees for birds and animals
- Promote bio fencing
- Planting flowering trees around the play ground
- Promote community afforestation projects

#### **Composition of the Go-Green Committee:**

- Principal of the college - Chairperson
- IQAC Coordinator - Secretary
- Faculty Representative nominated by the Principal
- Student Representative - General Secretary of the college
- Non-Teaching Staff Representative - Office Superintendent
- Parent Representative - Secretary of the Parent Teacher Association
- Industry Representative - Member of Alumni Association





### **5. Swachhta Committee:**

The institution has a Swachhta Committee which comprises Eco Club, NSS and NCC. They work under the guidance of respective conveners and other faculty. The goals of the committee are as follows.

- Environmental education through the help of gardens.
- Improving environmental standards
- Developing an environmental ethics and value system in the young generation
- To develop a good environmental atmosphere
- To provide environmental knowledge to the students
- Planting fruit trees for birds and animals
- Promote bio-fencing
- Planting flowering trees around the playground
- Promote community deforestation projects

The students are given strict instructions to maintain the campus clean and it is reflected in their handbooks. Several Quotes related to the importance of clean and green environment are displayed on the campus. A gardener and full-time adequate support staff are appointed for the maintenance of litter free clean and Green Campus.

## 11. BIODIVERSITY

- Institute has extensive landscape which encourages biodiversity. The campus has grass lands, individual and clumped trees, shrubs, herbs and grasses.
- The campus includes a Botanical Garden, Lawns and gardens in different places and which covers almost 30% of the total land.

### Details of Flora in the Campus

1	<i>Tridaxprocumbens</i> -	<i>Compositae</i>
2	<i>Zorniabiphylla</i>	<i>Pappilionacea</i>
3	<i>Sidarhombopidea</i>	<i>Malvacea</i>
4	<i>Leucasaspera</i>	<i>Lamiacea</i>
5	<i>Peperonia</i>	<i>Piperacea</i>
6	<i>Vandelliacrustecea</i>	<i>Acanthecea</i>
7	<i>Phyllanthusniruri</i>	<i>Euphorbiaceae</i>
8	<i>Ageratum conizoides</i>	<i>Compositae</i>
9	<i>Euphorbia hirta</i>	<i>Euphorbiaceae</i>
10	<i>Euphorbia rothiana</i>	<i>Euphorbiaceae</i>
11	<i>Pileamicrophylla</i>	<i>Urticacea</i>
12	<i>Spheranthusindicus</i>	<i>Compositae</i>
13	<i>Spheranthusafricanus</i>	<i>Compositae</i>
14	<i>Elephantopusscabra</i>	<i>Compositae</i>
15	<i>Veronica c inerea</i>	<i>Compositae</i>
16	<i>Smithiasalsugenia</i>	<i>Pappilionacea</i>
17	<i>Emilia sonchifolia</i>	<i>Compositae</i>
18	<i>Peltoforumferugenium</i>	<i>Caesalpenniacea</i>
19	<i>Coleus aromaticus</i>	<i>Lamiacea</i>
20	<i>Coleus parviflorus</i>	<i>Lamiacea</i>
21	<i>Plectranthussubinesus</i>	<i>Lamiacea</i>

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22	<i>Scopariadulcis</i>	<i>Scrophulariaceae</i>
23	<i>Moonia sp.</i>	<i>Compositae</i>
24	<i>Ipomearepens</i>	<i>Convolvuaceae</i>
25	<i>Sonerilarheedii</i>	<i>Melastomataceae</i>
26	<i>Embeliatsjeriam</i>	<i>Myrsinaceae</i>
27	<i>Embeliarobusta</i>	<i>Myrsinaceae</i>
28	<i>Ixoracoccinia</i>	<i>Rubiaceae</i>
29	<i>Mussaendafrondosa</i>	<i>Rubiaceae</i>
30	<i>Oldlandeaacorymbosa</i>	<i>Rubiaceae</i>
31	<i>Adina cordifolia</i>	<i>Rubiaceae</i>
32	<i>Morindacitrifolia</i>	<i>Rubiaceae</i>
33	<i>Borreriastricta</i>	<i>Rubiaceae</i>
34	<i>Borreriahespida</i>	<i>Rubiaceae</i>
35	<i>Smilax aspera</i>	<i>Liliaceae</i>
36	<i>Aloe vera</i>	<i>Liliaceae</i>
37	<i>Asperagusracemosus</i>	<i>Liliaceae</i>
38	<i>Sansevieraroxburghiana</i>	<i>Liliaceae</i>
39	<i>Ficusbengalensis</i>	<i>Moraceae</i>
40	<i>Ficusreligiosa</i>	<i>Moraceae</i>
41	<i>Ficusglomerata</i>	<i>Moraceae</i>
42	<i>Ficusinfectoria</i>	<i>Moraceae</i>
43	<i>Ficusgibbosa</i>	<i>Moraceae</i>
44	<i>Artocarpusintegrifoliia</i>	<i>Moraceae</i>

## DETAILS OF CAMPUS FAUNA

- Ants
- Spiders
- Bats
- Honey bees
- Birds
- Butterflies
- Dogs
- Cats
- Squirrels

### **Animal Welfare**

- The Institution is planning to associate with animal welfare organization to create awareness among the students.
- Poisoning of animals, wounding of animals and hunting of birds is strictly banned in the institution.

## **12. Water Management:**

- The institute imparts education in many streams for students of all age groups.
- A student population of 4606 is always present in the campus.
- Water is used for drinking, cleaning, gardening, toilets and restrooms.
- Institute has made arrangements for collection, storage and distribution of fresh water for all users in the campus.

**A) Fresh Water sources:** The important sources of water are, underground and City Municipal Corporation of Puttur

Sl. No	Fresh Water Sources	No. of Units	Population
1	Borewell 1	1	275
2	Borewell 2	1	185
3	Borewell 3	1	223
4	Borewell 4	1	1423
5	Borewell 5	1	1450
6	Well Water	1	1050
<b>Total</b>			<b>4606</b>

## B) Details of water Consumption

Water Consumption				
Sl. No.	Unit	Population	Water Consumption in Litres	Water Consumption (per capita)
1	PG Centre	275	41250	150
2	Boys Hostel	185	27750	150
3	Girls Hostel	223	33450	150
4	UG	1423	21345	15
5	PUC	1450	21750	15
6	Highschool	1050	15750	15
	<b>TOTAL</b>	<b>4606</b>	<b>161295</b>	

## 13. Waste water Management:

Details of waste water generation and Disposal method.

Waste Water Generation (litres/day)			
Sl. No.	Units	Waste Water Generation	Disposal Methods
1	PG Centre	35063	Septic Tank and Soak Pit
2	Boys Hostel	23588	Do
3	Girls Hostel	28433	Do
4	UG	18143	Do
5	PUC	18488	Do
6	Highschool	13388	Do
	<b>TOTAL</b>	<b>137103</b>	

## 14. Solid Waste Management:

- The institution generates solid wastes from different sources. Solid wastes are in the form of food packets, empty bottles food remnants and broken materials, broken crockery and utensils.
- In Physics lab, broken equipments and in Chemistry lab broken vessels made up of glass. The food waste of the hostels is taken by nearby pig rearing farms.

- **Type of waste generated:** The waste can be broadly classified as Bio-degradable and non-degradable. Bio-degradable wastes are referred as Wet Waste & other wastes as Dry Waste

Details of Solid waste generations and disposal methods,

Sr No	Units	No of Dust Bins	Solid Waste Generation		Disposal Method
			Type1	Type2	
1	PG Centre	20	6kg	4kg	Puttur CMC
2	Boys Hostel	50	13kg	6kg	Pig Farm & Puttur CMC
3	Girls Hostel	60	17kg	7kg	Pig Farm & Puttur CMC
4	UG	40	16kg	6kg	Puttur CMC
5	PUC	35	10kg	5kg	Puttur CMC
6	High school	30	13kg	8kg	Puttur CMC

### **15. Hazardous Waste Management:**

- Chemical waste** that is generated in the laboratories such as acids/ bases is neutralized before disposal. Non-hazardous liquid chemical waste is then disposed of in sinks and hazardous liquid chemical waste is stored in separate glass containers and disposed of as hazardous waste.
- Biological waste** generated in the laboratories is decontaminated in the autoclave. Microbial/contaminated cultures are decontaminated/washed separately and disposed of following standard protocol.
- E waste:** To manage e-waste the college has letter of understanding with Souza Computers Puttur. The electronic devices that cease to be functional are deposited at a safe place temporarily, from where M/S Souza Electronics collect e-waste generated and the same is disposed of in an eco-friendly manner.

### **16. Power Management:**

**Energy consumption:** Main source of Power supply to the campus is MESCOM. Due to the uncertainties in the continuous power supply, alternate power supply is made available in the form of Diesel Generators (DG).

- Solar panel is also used to generate the energy and this solar energy is used for in house purpose.



## **17. Resource Conservation -Present Practices & Proposed Plans**

### **a. Water Conservation**

- Rain water harvesting is undertaken on the Campus.
- Rain water falling on a roof of 10,000 sq. ft. is collected and stored in a facility with a capacity of 20,000 liters.
- This water is used for Rest rooms and Toilets.
- Periodic monitoring is done to check any wastage of water in the institution.
- Awareness programmers on water use.

### **b. Energy Consumption & Conservation Plans**

- Solar water heating system installed in hostel. Institute is decided to install solar panel on college building within 2 years.
- Institution is planning to install power saving equipments including the plan to make the entire campus run on solar energy in future.
- students are oriented not to waste the electric energy.

## **18. Training & Awareness in Social & Environmental components**

### **Environmental Awareness Programs:**

- The institution has been trying to increase consciousness and knowledge about the environment and the major environmental problems facing in the country. The various awareness programmes to influence the public including teachers, students, voluntary workers, educators, farmers, women and youth, on all aspects of environment and ecology with the purpose of promoting conservation of nature and natural resources are given below.
- Such programs intend to change the perception of students towards environment. The institute had conducted several training programs and awareness programs for students. Resource persons from diverse areas of like Waste Management, Nature & Ecology.

**1) Hasira Naduva Dhaari:**

**Resource Person:** Mrs. Roopa Shetty, Municipal Commissioner, City Municipal Council, Puttur



**2) Celebration of World environmental Day:**



### 3. Clean and Green Programme:



### 4. Nature and Art Workshop:

Fine Arts association of the college has organized a Nature and art Workshop at Beeramale Hill. 40 students of the college have participated in the workshop. Dr. Prasanna Rai, HOD of Botany was the resource person.



### 5. Herbal medicinal plantlets rooted on college campus:

The herbal medicinal garden was started by medical and psychiatric MSW students on the P.G. Campus. Rev. Dr. Antony Prakash Monteiro, Chairperson of center for P G studies and Research, rooted few herbal plantlets and inaugurated the herbal medicinal garden.



### 6. Landscaping with trees and plants:

St Philomena college organizes Tree Plantation program every year at the College Campus. Students and faculty members enthusiastically initiate and participate in the tree plantation drive on the campus and also outside the campus. Environment promotional activities and other awareness programmes among the students regarding advantages of tree plantation for an Eco-friendly Environment are conducted.

The College celebrates “The World Environmental day” on June 5<sup>th</sup> every year by conducting competitions among students and also by arranging talks by eminent people to bring awareness. The plantation program includes plantation of various types of ornamental and medicinal variety, wild plant species in large numbers. This

program promotes eco-friendly environment, by stepping up the oxygen levels on the campus.

### **19. Conclusion**

Environmental protection, developing greenery and conservation of natural resources are grabbing more attention, especially in the light of observed climate changes now a days. In regards to this and as per audit observation, St Philomena college has taken major steps with an aim of creating green campus to combine education with environment friendly practices.

To ensure and maintain the Campus Greenery and pollution free, necessary action like complete ban of plastics inside the campus, zero waste concept, no vehicle parking, use of natural resources like solar light, water conservation techniques are well planned and executed very neatly. Also, Institution's main priority is spreading awareness on the green practices among students and stake holders. Institute has succeeded in meeting and promoting sustainable eco-friendly practices as mentioned in their green policy.

Audit report prepared by:

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