

SUMMARY REPORT

GREEN AUDIT

OF

GMLP SCHOOL, KUMMINIPARAMBA

An Extension Programme of




DEPARTMENT OF BIOTECHNOLOGY EMEA COLLEGE OF ARTS AND SCIENCE

Re-accredited with 'A' grade by NAAC
(Aided, affiliated to University of Calicut)
KONDOTTY, P.O. KUMMINIPARAMBA
MALAPPURAM (DIST), PIN. 673 638




PRINCIPAL
EMEA COLLEGE OF ARTS
& SCIENCE, KONDOTTY
MALAPPURAM DT. 673 638


Dr. Mashhoor K.
Assistant Professor and Head
Dept. of Biotechnology
EMEA College of Arts and Science
Kondotty, Kerala, 673638

GREEN AUDIT REPORT
OF
GMLP SCHOOL, KUMMINIPARAMBA



ON - 29.03.2022

An extension programme of
DEPARTMENT OF BIOTECHNOLOGY
EMEA COLLEGE OF ARTS AND SCIENCE
(Reaccredited with 'A' grade by NAAC)
Kondotti, Malappuram (Dt) Kerala, Pin-673638

In Collaboration With

PALLIKKAL GRAMA PANCHAYATH

&

MANCHESTER ARTS AND SPORTS CLUB
KUMMINIPARAMBA



PALLIKKAL GRAMA PANCHAYATH



EMEA COLLEGE OF ARTS AND SCIENCE



MANCHESTER ARTS AND SPORTS CLUB



**PALLIKKAL
GRAMA PANCHAYATH**



**EMEA COLLEGE OF
ARTS AND SCIENCE**



**MANCHESTER
ARTS AND SPORTS CLUB**

**GREEN
AUDIT** IN
GMLP SCHOOL
KUMMINIPARAMBA

**MARCH 2022
29**

AN EXTENSION PROGRAMME OF
DEPARTMENT OF BIOTECHNOLOGY
EMEA COLLEGE OF ARTS AND SCIENCE

(Reaccredited with 'A' grade by NAAC)
Kondotti, Malappuram (Dt) Kerala. Pin-673638

In Collaboration With

**PALLIKKAL GRAMA PANCHAYATH &
MANCHESTER ARTS AND SPORTS CLUB
KUMMINIPARAMBA**

In association
with IQAC

CO-ORDINATORS

Ms. Naseera Kannanari

Ward Member
Pallikkal Grama Panchayath

Dr. Mashhoor K

Head, Dept. of Biotechnology
EMEA College of Arts and Science

Mr. Mansoor

President, Manchester Arts
& Sports Club

Flyer of the Program

Contents

1. Background and Need Assessment	- 01
2. Audit Team	- 02
3. Objectives of the Green Auditing	- 03
4. Eco-friendly activities are undertaken inside the campus	- 03
Appendix 1. Letter from the ward member	- 13

1. Background and Need Assessment

The process of Green Auditing aims at accessing the present environmental settings and to inculcate the habit of environment-friendly living among the students. With the above objective the **Pallikkal Gramapanchayath, Ward 7 Member** has requested to the Biotechnology Department of EMEA College of Arts and Science, Kondotty to conduct a green audit in GMLP School, Kumminiparamba. The Biotechnology department decided to involve students in the process, in order to give them a sense of eco-friendly living. The term "Green" means eco-friendly or not damaging the environment. This is called as "Global Readiness in Ensuring Ecological Neutrality" (GREEN).

"Green Auditing", an umbrella term, is known by another name "Environmental Auditing". Green auditing is the systematic identification, quantification, recording, reporting, and analysis of various establishments' environmental diversity components. Its goal is to examine environmental practises both inside and outside of the concerned sites that have an impact on the environment.

A green audit can help an institution to figure out how and where they're wasting the most energy, water, and resources, so they can figure out how to make adjustments and save money. It can also be used to determine the type and volume of garbage, which can be helpful in planning a recycling project or improving a waste minimization strategy. It has the potential to raise health awareness while also promoting environmental awareness, morals, and ethics. It gives staff and students a greater knowledge of the campus's environmental impact. If self-inquiry is a natural and necessary part of a good education. Institutional self-inquiry may be said to be a natural and necessary part of a good educational institution. As a result, it is critical that the institution assess its own contributions to a long-term future. The function of educational institutions in connection to environmental sustainability is growing more widespread as environmental sustainability becomes an increasingly crucial issue for the nation.

That is the only way to keep the planet safe. It is vital to conduct a green audit on college campuses because students are aware of green audits, their benefits in saving the environment, and their potential to become good citizens of our country. Green

auditing and the 16-development process assist to reduce waste and associated costs while also improves the product quality. Obviously, there is a link between a green audit and a company's long-term success. Determine the Green Audit policy, Green Audit Framework, Accurate execution, and Result analysis are the most important requirements for ensuring the business's long-term success. A robust Green Audit process can aid in achieving long-term sustainability. The Green Audit Framework helps organizations achieve their goals. Green audits relate to the process of sustainable development. Green audits and sustainable development processes help reduce waste and associated costs and improve product quality.

In recent years, a Green Audit of an institution has become increasingly crucial for self-assessment of the institution's involvement in alleviating current environmental challenges. Many organisations take several positive steps to address these issues, but these efforts are not documented due to a lack of green documentation awareness. All of the administration's non-academic activities go a long way towards ensuring the campus's green quotient, remains intact.

2. Audit Team

The audit was conducted with the active involvement of teachers and students of the Department of Biotechnology, EMEA College of Arts and Science, Kondotty. For the identification of species, the service of a taxonomist was availed.

Details of faculty members are given in the following table.

Sl. No.	Name of Members	Department
Faculty Members		
1.	Dr. Mashhoor K	Biotechnology
2.	Ms. Shilly Das A	Biotechnology
3.	Dr. Somy Soman	Biotechnology
4.	Ms. Rameesa K	Biotechnology

3. Objective of Auditing

Since this green audit is conducted by educational institutions, the main purpose of this audit is to create a community with a sense of environmental protection for sustainable living and enable them to make better deliveries. To evaluate the school systems and facilities and also it acts as a road to the environment for the next generation. Therefore, the main objectives of the Green Auditing are

1. Protection activities within the campus.
2. To assess the status of solid and liquid waste management activities in the campus.
3. To evaluate preliminary status of water, air and natural environment
4. To create a sense of eco-friendly living among the students in order to guide them to live in an eco-friendly manner.
5. To assess level of energy conservation activities in the Campus.
6. To assess the social activities undertaken by the students related to environmental protection.
7. To make Campus a more environmentally sustainable and eco-friendly institution in the future.

4. ECO-FRIENDLY ACTIVITIES UNDERTAKEN IN THE SCHOOL

Rain Water Harvesting Activities

Rain water harvesting is a well-known system for water conservation. GMLP School, Kumminiparambu is situated in the Pallikkal village of the Kondotty taluk in Malappuram district, the area needs proper rainwater storage during summer seasons. The school has purposefully maintained a water storage tank which having 20,000 litre water holding capacity. Due to this activity, the school has succeeded in keeping the

ground water table at higher levels during summer season. Thereby there is no need of bringing drinking water from outside sources using tanker Lorries. Another effort taken by the school is the establishment of water purifier in the campus for meeting drinking water needs of the students.



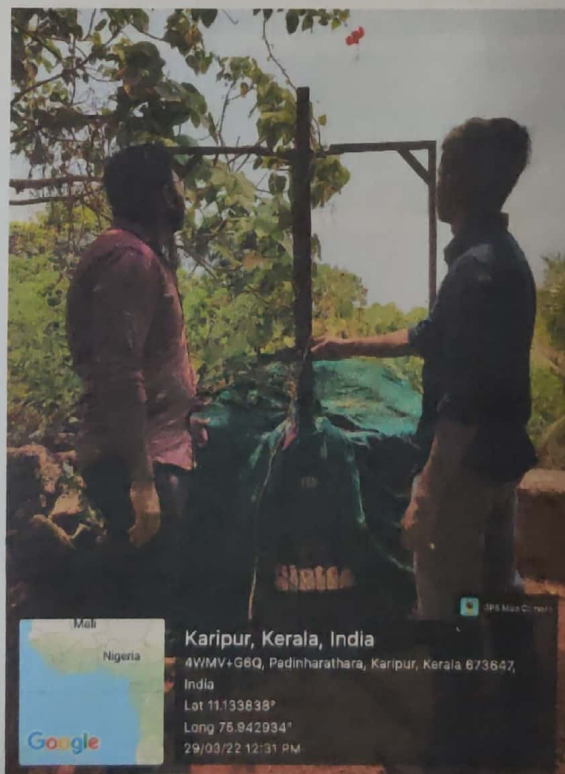
Rain water harvesting Tank



Water purifier

Solid Waste Management Activities in the Campus:

The school has given importance for proper management of Solid and liquid waste generated in the campus. In the case of solid waste, especially easily biodegradable waste (Food Waste), there is a system of storage of waste at the source of generation. Biodegradable type of solid waste is also being collected from different part of the school Campus and Buildings and transported in to a biogas plant installed inside the campus. Here the campus is imparting natural way of composting.

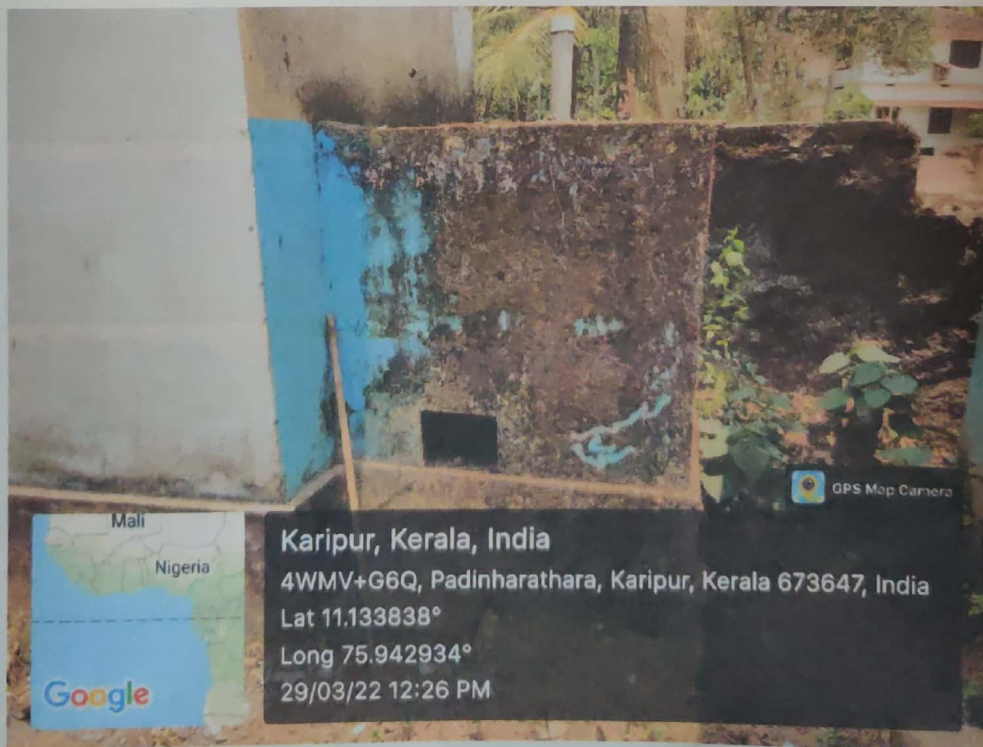


Biogas plant setup for solid waste (food waste) management

To deal with disposal, collection and removal of waste, school have installed bins for organic, plastic and general wastes. Source level segregation and storage facility is made available in the Campus. The school has also maintained a paper incinerator for the elimination of waste paper without any hazardous residue.



Waste bin



Facility for the disposal of papers

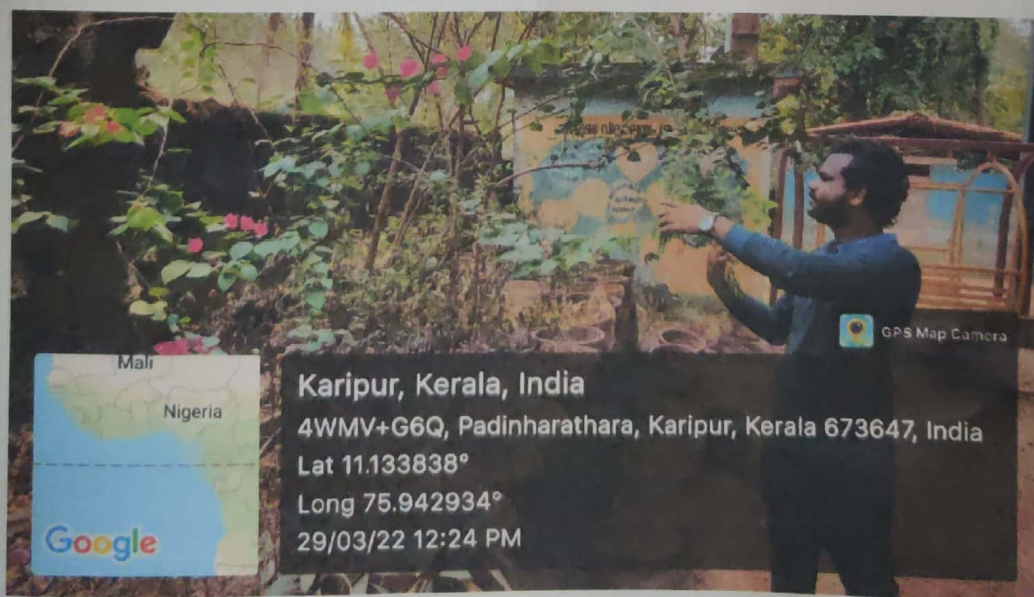
Liquid Waste Management Activities in the Campus

Liquid wastes are mainly generated from toilets and bathrooms in the school. There is a proper system for segregated collection of Black Water from Toilets and Kitchens. Black water from toilets of being collected, treated and disposed of utilizing proper Septic Tank and Soak Pit system constructed in the Campus



Environmental Beautification

Even though the school has less campus, which is maintained with various plants. Local trees like Coconut, Jackfruit and Mango trees are planted within the campus for giving shade and greenery environment in the Campus.







Transportation

The majority of students and staff use school buses and public transport to minimize the use of private vehicles to travel. To collect students, there are school buses that efficiently cover almost all areas of the school. The rest use public transportation for their travel needs. This shows that we are meeting our goal of reducing the carbon footprint of students in the transportation sector.



BIODIVERSITY IN THE CAMPUS

Analysed the flora and fauna of the campus and analysed data as tabulated below.

Checklist for Biodiversity Study conducted

Checklist of Flora observed in the campus:

SI NO.	COMMON NAME	SCIENTIFIC NAME
1.	4 'o'clock plant	<i>Mirabilis jalapa</i>
2.	Papaya	<i>Carica papaya</i>
3.	Chandada	<i>Macranga peltata</i>
4.	Mission grass	<i>Pennisetum polystachion</i>
5.	Devil tree	<i>Alstonias cholaris</i>
6.	Banana tree	<i>Musa paradisiaca</i>
7.	Mountain knotgrass	<i>Aerva lanata</i>
8.	Common wireweed	<i>Sida acuta</i>
9.	chilli	<i>Capsicum annum</i>
10.	Drumstick tree	<i>Moringa oleifera</i>
11.	Tapioca	<i>Manihot esculenta</i>
12.	Node weed	<i>Synedrellan odiflora</i>
13.	Pancoli	<i>Phyllanthus reticulatus</i>
14.	Curved flower woody chassalia	<i>Chassalia curviflora</i>
15.	Wild hibiscus	<i>Hibiscus hispidissimus</i>
16.	Gulmohar	<i>Delonix regia</i>
17.	West indian lantana	<i>Lantana camara</i>
18.	Mango tree	<i>Mangifera indica</i> L
19.	Brinjal	<i>Solanum melongena</i>

Checklist study of Invertebrate Fauna observed

Phylum : Arthropoda; Class : Insecta

SI NO	COMMON NAME	SCIENTIFIC NAME
-------	-------------	-----------------

Order : Lepidoptera (Butterflies)

1	Common Tiger	<i>Danaus Chrysippus</i>
2	Common Rose	<i>Pachliopta Aristolochiae</i>
3	Common crow	<i>Euploea core</i>
4	Common Jezibel	<i>Delias eucharis</i>
5	Common bush brown	<i>Mycalesis perseus</i>
7	Common mime	<i>Papilio clytia</i>
8	Common Indian Crow	<i>Danmini tribe</i>
9	Crimson jose	<i>Pachliopta hector</i>
10	Blue tiger	<i>Tirumala limniace</i>

Order : Hemiptera (Bugs)

1	Mealybug	<i>Planococcus citri</i>
---	----------	--------------------------

Order : Orthoptera (Hoppers and crickets)

1	Common grass hopper	<i>Omocestus viridulus</i>
2	Cockroach	<i>Periplanata americana</i>

Order : Hymenoptera (Bees, wasp and ants)

1	Honey bee	<i>Apis cerana</i>
2	Carpenter bee	<i>Xylocopa violacea</i>
3	Oriental hornet	<i>Vespa orientalis</i>

Order: Diptera(flies)

1	House fly	<i>Musca domestica</i>
2	Yellow fever mosquito	<i>Aedes aegypti</i>
3	Fruit fly	<i>Drosophila melanogaster</i>

Order: Coleoptera

1	Rhinoceros beetle	<i>Oryctes rhinoceros</i>
---	-------------------	---------------------------

Phylum Arthropoda; Class: Arachnida**Phylum : Arthropoda**

1	Red headed centipede	<i>Scolopendra morsitans</i>
2	Yellow spotted millipede	<i>Harpaphe haydeniana</i>
3	Oral web browser spider	<i>Arachnura angora</i>

Phylum : Annelida; Class: Oligochetae

1.	Common earthworm	<i>Megascolex mauritii</i>
----	------------------	----------------------------

Phylum : Mollusca; Class : Gastropoda

1.	Garden snail	<i>Cornu aspersum</i>
----	--------------	-----------------------

Checklist study of Vertebrates fauna Observed**Class :Amphibia (Frog and toads)**

1	Common frog	<i>Rana temporaria</i>
2	Common toad	<i>Bufo bufo</i>

Class: Reptilia

1.	Garden Lizard	<i>Calotes versicolor</i>
----	---------------	---------------------------

Class :Aves (Birds)

1	House crow	<i>Corvus splendens</i>
2	Common myna	<i>Acridotheres tristis</i>

3	Pigeon	<i>Columba livia</i>
4	Common kingfisher	<i>Alcedo atthis</i>
5	Indian pond heron	<i>Ardeola grayii</i>
Class: Mammalia		
1	Five striped palm squirrel	<i>Funambulus pennantii</i>
2	House mouse	<i>Mus musculus</i>
3	Free-ranging dog	<i>Canis familiaris</i>

Study findings

The institute adopts good practices in environmental protection and waste management. A wide variety of plant species were found within the campus, including herbs, shrubs, trees, and medicinal plants. We also classified all fauna into invertebrates and vertebrates. As usual, invertebrates predominated the most. Insect fauna and avian fauna deserve much attention in studies as they are the most dominant. The invertebrate fauna is in the order Lepidoptera, Dragonflies, Orthoptera, Hemiptera, Pterae, Diptera, Coleoptera, Hymenoptera and Annelida, Mollusca and Arthropoda. vertebrates were represented by amphibians, reptiles, birds and mammals. Long-term sustainability is sorely needed, as research reports show that this campus appears to be the ultimate tribute to a wide variety of species.

1. DR MASHHOOR K

2. SHILLY DAS. A

3. DR. SOMY SOMAN

4. RAMKEESA K



[Signature]
PRINCIPAL
E M A COLLEGE OF ARTS
& SCIENCE, KONDOTTI
WALAFFURAM DT. 673 629

നസീറ കണ്ണനാരി

മെമ്പർ (വാർഡ് 7)
പള്ളിക്കൽ ഗ്രാമപഞ്ചായത്ത്
പള്ളിക്കൽ. പി.ഒ. മലപ്പുറം 673634
ഫോൺ: 0483 2790114
Email: pallikkalgp123@gmail.com



നമാസ്
പി.ഒ. കുമ്മിണിപറമ്പ്
മലപ്പുറം, 673638
ഫോൺ: 9846188040

Ref:

Date: 01.02.2022

To

Dr. Mashhoor K
Assistant Professor and Head,
Department of Biotechnology,
EMEA college of Arts and Science, Kondotty.

Respected sir,

I am writing this letter to seek your willingness to carry out a **Green Audit** of GMLP school, Kumminiparambu in my ward No.7, pallikkal panchayat. We believe a biodiversity study would definitely help us for further development of the school. Manchester Arts and sports club, Kumminiparambu have expressed their willingness to collaborate with this programme. Kindly consider this and do the needful.

Thanking you

Kannanari Nagesa

Copy to: President, Manchester Arts and Sports Club

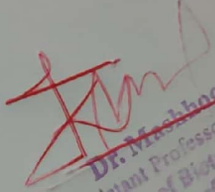
കണ്ണനാരി നസീറ
മെമ്പർ വാർഡ്-07
പള്ളിക്കൽ ഗ്രാമപഞ്ചായത്ത്
പള്ളിക്കൽ പി.ഒ. 673634

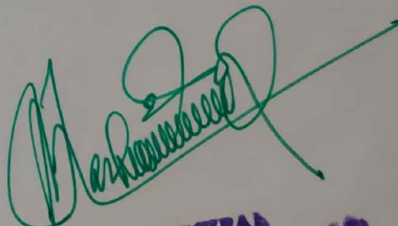
LIST OF STUDENTS

ENROLMENT REGISTER

S.No.	Name	Gender	Class	Sign
1.	NEETHU.P	Female	III Year BSc BT	
2.	AFEEFA SHERIN MM	Female	III Year BSc BT	
3.	MOHAMMED HASSANAIN	Male	III Year BSc BT	
4.	FATHIMA NITHA	Female	III Year BSc BT	
5.	SALVA BATHOOL.P	Female	III Year BSc BT	
6.	FATHIMA SHABNA K	Female	III Year BSc BT	
7.	HASLA P	Female	III Year BSc BT	
8.	SUHARA SANIYA	Female	III Year BSc BT	
9.	LIHANA RAFEEQUE. KK	Female	III Year BSc BT	
10.	RIFA LATHEEF.C	Female	III Year BSc BT	
11.	MUHAMMED RAYYAN P	Male	III Year BSc BT	
12.	SHABEEBA NASHARI	Female	III Year BSc BT	
13.	FATHIMA FIDHA M	Female	III Year BSc BT	
14.	MUHAMMED ASLAM	Male	III Year BSc BT	
15.	ARSHAD MUHAMMED KP	Male	III Year BSc BT	
16.	MUHAMMED FARIS M	Male	III Year BSc BT	
17.	AYISHA NIHALA E	Female	III Year BSc BT	
18.	SANA M	Female	III Year BSc BT	
19.	NAJWAH ANAPRA	Female	III Year BSc BT	
20.	NIHALA SHIRIN PP	Female	III Year BSc BT	
21.	AFNA C	Female	III Year BSc BT	
22.	NIDHA JASMIN PULLAT	Female	III Year BSc BT	
23.	ANAGHA P	Female	III Year BSc BT	
24.	HUSNA A	Female	III Year BSc BT	
25.	ANJANA M K	Female	III Year BSc BT	
26.	BIJOY K P	Male	III Year BSc BT	
27.	BINJU SARIYA T	Female	III Year BSc BT	
28.	ADITH V	Male	III Year BSc BT	
29.	DANISH FASIL P	Male	III Year BSc BT	
30.	SHIFA SHERIN	Female	III Year BSc BT	

31.	NAJVA MOIDEEN	Female	III Year BSc BT	
32.	AFEENA K	Female	III Year BSc BT	
33.	SHANIBA SHERIN P	Female	III Year BSc BT	
34.	NADHA JASMIN N K	Female	III Year BSc BT	
35.	ANSHID P	Male	III Year BSc BT	
36.	SAFNA ABDUL GAFOOR	Female	III Year BSc BT	
37.	FATHIMA SURAYYA E	Female	III Year BSc BT	
38.	ADITHYA P	Female	III Year BSc BT	
39.	SHAMEEMA THASNI PP	Female	III Year BSc BT	
40.	JUBILA P	Female	III Year BSc BT	
41.	NIYALJITH K C	Male	III Year BSc BT	
42.	JABSHIRA RISHIN	Female	III Year BSc BT	


Dr. Manohar K.
 Assistant Professor and Head
 Dept. of Biotechnology
 FMEA College of Arts and Science
 Kumbangi, Kozhikode, 673038



PRINCIPAL
FMEA COLLEGE OF ARTS
& SCIENCE, KONDOTTI
MALAPPURAM

