

KIANG NANGBAH GOVERNMENT COLLEGE, JOWAI

GREEN POLICY

INTRODUCTION

The Kiang Nangbah Government College, Jowai was set up in 1967. It is a premier institution of Higher Education in the West Jaintia Hills District of Meghalaya and one of the first Government Colleges, which was established in the state. Located in a vast and well-maintained campus conducive for academic activities, the college offers Arts, Science and Commerce courses at the Bachelor's Degree level. With a total area of 24.218 acres, the college has a rich landscape covered mostly by trees and vegetation that provides a serene and idyllic atmosphere and gives the real look of a place of learning.

PURPOSE

The purpose of this document is to emphasise the importance of the environment and to safeguard the rich flora and fauna in the surroundings of the Kiang Nangbah Government College, Jowai.

SCOPE

This policy applies to all stakeholders of the college- staff and students

ROLES & RESPONSIBILITIES

The Member Secretary and all members of the Green Campus Initiative Committee, Disaster Management Committee and Health and Sanitation Committee along with the administration of the college will be responsible in upholding the intricate details of this document.

OBJECTIVES

Kiang Nangbah Government College being government institute aims to uphold the directives provided in the National Environment Policy to the best of its capacity. The college encourages sustainability and conservation of the environment by endorsing the following objectives

- Creating awareness regarding environmental issues and challenges amongst the students and the management.



- Restricting pollution of environment.
- Protecting and nurturing the flora and fauna in the campus.

WATER MANAGEMENT

In view of critical shortage of water, conservation of water by rain water harvesting and by use of recycled water to the maximum extent possible will be required. The college shall make efforts in harvesting rain-water in the campus. The roof of the college buildings can be considered as the catchment areas. Infrastructure and apparatus for harvesting rainwater from the rooftop of buildings of the college are installed. An underground bore well or tank is also installed at a strategic place so as to make use of underground water. This water is then filtered for unwanted substances and dirt.

Roof-Top Rain Water Harvesting Apparatus

A coarse mesh is installed at the roof to prevent passage of unwanted debris into the conduits. Gutters are also attached to the edges of the sloping roofs to collect the rainwater. The gutters can be of circular or rectangular cross section and can be made using iron or aluminum sheets, PVC pipes, or Bamboo, whichever is locally available and economical.

The conduits (pipes or drains) that carry the rainwater from the gutters to the harvesting system can be polyvinyl chloride (PVC) or galvanised iron (GI). Because the average rainfall intensity of the state as a whole is 268.90 mm, pipes with a diameter of 150 mm should be installed as conduits (National Building Code, 2016). The water from the conduits/pipes is passed through a filter to remove the suspended particles and micro-organisms from water before it enters the storage tank or recharge well. The filter is either a sand filtration system or a charcoal water filter.

The water storage facility is cemented and located underground. This tank is cleaned at regular intervals to ensure the quality of the water stored does not diminish.

First flush mechanism is also installed at the outlet of conduits/ pipes which discards the water received in first shower. This is necessary to avoid impurities and contaminants, such as dust, very low quantities of pollutants, organic matter, etc.



Water Recharge Pits

Rainwater shall also be harvested and used for charging the groundwater aquifers through suitable structures like bore wells. The College has two bore wells that are used mainly for the supply of water to the hostels and residences and to the laboratories and for other purposes in the college. The water from these wells need to be filtered through a sand or charcoal filter for impurities before supplying to the various parts of the campus.

Water Supply and distribution

The water supply and distribution system within the college needs to be inspected at regular frequencies. The conditions of the motor pumps, pipes and the outlets need to be checked and verified by plumbers and electricians to ensure proper and timely. Storage tanks need to be cleaned at regular at least once a year to ensure clean water is supplied to all areas of the college especially for drinking purposes.

WASTE MANAGEMENT

Waste management is an important aspect for the college to handle. The solid wastes such as those from the canteens, residences, hostels and those from the office should be handled carefully. The waste affluent from the laboratories must also be handled properly to ensure that unwanted chemicals do not leak to the soil and water bodies. The College will apply a 'waste hierarchical approach', to reduce, reuse, recycle and recover waste products in preference to the disposal of waste to landfill. The College recognises the importance of meeting these legal requirements and to manage its waste responsibly, reduce the volume of waste sent to landfill and maximise reuse and recycling where possible. The college requires all the teaching and non-teaching staff, students, guests and anyone else making use of the premises to comply with this Policy.

Waste avoidance and waste minimization at source

In the hierarchy of waste management, waste avoidance and waste minimization have to be attempted first, for which dissemination of information on technological options should be a continuing exercise. Promote implementation of recovery of resources such as solvents, other reagents and by-products as well as re-generation of spent catalysts in a time frame manner.

Reuse, recovery and recycling of non-hazardous waste



The college will explore options/ opportunities of reusing, recovery and recycling of non-hazardous waste in an environmentally sustainable manner. Paper waste will be recycled to make paper board and packing material. The toxic inks and dyes of the paper will be treated with enzyme technology, which is environmentally benign.

Setting up of common Treatment, Storage and Disposal Facilities

Common treatment plant for the departmental and house hold waste will be established and the degradable waste will be treated according to their physical nature. For complete details with regards to construction of landfill and disposal of waste one can refer to the Solid Waste Management Rules, 2016 of the State of Meghalaya. For the non-biodegradable waste, the college will sign a Memorandum of Understanding (MoU) with the Municipal Board to collect the waste from the college at frequent intervals.

Dustbins

The college shall make an effort in segregating the waste by placing two types of dustbins- conical traditional baskets (khoh) for the dry wastes and conventional dustbins for wet wastes. These dustbins must be labeled well so that all stakeholders know their purpose.

E-waste

An agreement between the college and the electronic suppliers must also be made mandatory by the college administration to handle e-wastes. This agreement must ensure that the electronic devices that are no longer in working condition and beyond repair must be collected back by the suppliers and thus returned back to the parent company to ensure recycling of such wastes.

ENERGY CONSUMPTION

Kiang Nangbah Government College is committed to policy of energy efficiency, energy conservation, and the reduction of our environmental impact. The college shall follow guidelines provided by the Meghalaya Energy Conservation (Energy Consumption Standards for equipments and appliance) Regulations to ensure the efficient consumption and conservation of energy.



- **Use of CFL/LED Bulbs**

In an attempt to reduce the consumption of energy, the college shall at all times ensure that only energy star –qualified CFL/LED bulbs are used inside the campus.

- **Procurement of electronic appliances**

All electronic appliances procured for the college shall be BEE and shall be of 3 star rating or above. In case of type/category of appliances/equipments that are not yet covered under star labeling by the BEE, only ISI/IEC standard appliances/equipments having maximum efficiency shall be considered for procurement.

- The college shall also encourage the use of laptops and reduce the use of desktops as much as possible in the campus. All computers used in the campus shall also refrain from using screensavers to ensure that PCs switch to power saver mode (sleep mode) in order to reduce the energy consumption.

ENVIRONMENT MANAGEMENT

To continue to provide a serene atmosphere for learning, the college shall strive to maintain the environment inside the campus. The tree and vegetation cover need to be maintained by conducting awareness programmes on environment pollution from time to time. Programmes such as plantation of various types of trees, no vehicles day, periodic rallies and road-shows for awareness should be observed.

Sustainable Landscaping

Landscaping is an important feature of the college campus. However, the college shall seek to maintain its greenery by implementing sustainable landscaping which emphasizes on the plant selection and proper selection of plantation areas.

Display boards and signboards

Display boards and signboards on the importance of the environment shall be placed in most areas of the college as awareness for all.

Compulsory Pollution check-up of vehicles

PUC certificate authorized by the pollution department should be mandatory for all students and staff who drive to the campus. Periodic and surprise checking of PUC document at the college shall also be made compulsory for all students and staff of the college.



Restricted entry of vehicles

All vehicles entering the campus need to be checked for college IDs and register at the gate along with the entry and exit timestamp. Other visitors apart from students and staff of the college must also provide the reason for visiting the college at the gate.

SAFETY AND DISASTER MANAGEMENT

The safety and security of all stakeholders is of the utmost importance to the college administration. All college buildings and infrastructure are to be checked at regular intervals to avoid any kind of mishap and accidents. The College shall also make sure that the following are also implemented in order to avoid any kind of accidents and hazards:

1. Pedestrian Friendly path walks

Footpaths shall be constructed along the driveway in the college campus to avoid accidents of any kind.

2. Periodic check of all college buses

College buses ply the town in all working days for picking and dropping off the students at designated points in the town to and from the college. These buses need to be checked periodically for any kind of unwanted issue that could lead to accidents and safety concerns for the students and the general public.

3. Emergency exits

All newly constructed college buildings shall have emergency exits to avoid stampede and congestion in times of earthquakes and other disasters.

4. College Buildings

Being in the seismic Zone 5, the college buildings need to be inspected every time for any renovations and reconstruction of damaged areas. The college should also ensure that construction of all new buildings follow the National Building Code to ensure the safety of all stakeholders.

5. Pandemic Situations

During any pandemic breakout the college should ensure that the Standard Operating Procedures provided by the government are being followed by all stakeholders.



6. Surveillance

CCTV cameras should be placed at strategic places in the campus to tackle theft and other possible violence and crime inside the college campus. The details of the surveillance system should be laid out in the IT policy.

7. Fire extinguishers

The college shall have fire extinguishers in all its buildings. The Selection, Installation and maintenance of first-aid fire extinguishers- Code of Practice, Bureau of Standards (4th revision) should be followed for selection, installation and maintenance of fire extinguishers in the college.

8. Emergency Contact Numbers

All contact numbers of emergency services such as those for the fire station, police department, ambulance services etc should be displayed at various areas in the campus.

HEALTH AND SANITATION

The college shall have a health centre inside the campus with professional/paraprofessional staff to cater to the various health needs of all stakeholders of the college. The health centre should be well equipped to handle basic health care such as first aid etc. This health centre needs to be open during all working hours of the college.

The college shall also attempt to have proper drinking stations at all the floors in college buildings. These drinking stations shall be equipped with water purifiers to ensure clean drinking water is dispensed. The filters of the water purifiers should also be changed at regular intervals.

The college also needs to ensure that all basic sanitation facilities like toilets and wash basins are present at all floors of the college buildings. The toilets and wash basins must have adequate water supply and plumbing to ensure cleanliness and hygiene. The toilets shall also have adequate ventilation and exhaust fans to ensure adequate circulation of air inside.

ECO CLUB

The college shall also ensure that the Eco Club shall be initiated. The Eco Club will constitute of students, academic and non-academic staff. It will also empower students and staff to participate and take up meaningful environmental activities and projects. It is a forum through



which students and staff can reach out to influence, engage their families and neighborhood communities to promote sound environmental behavior. It will empower students to explore environmental concepts and actions beyond the confines of a syllabus or curriculum. The Eco club shall be vital in organizing events and programmes related to the environment. The club shall be constituted of all the members of the Green Campus Initiative Committee, the Member Secretary of the Committee as the Convener. 20 student representatives from all three streams- Arts, Science and Commerce shall also be part of the club along with 5 non-academic staff.

GREEN AUDIT

The college shall attempt to conduct the green audit once in three years. The green audit must be done externally. The external audit committee must comprise of internal and external members or should be done by an external agency. The green audit process shall follow the following process:

1. Selection of a team

The members of the audit team must be from the college and also external members with the expertise to conduct the green audit. The audit committee must comprise of at least 3 members- 1 from the institute and 2 external members.

2. Pre-audit stage

For the pre-audit stage, the College Administration along with the Green Campus Initiative Committee, Disaster Management Committee and Health and Cleanliness Committee must conduct the following activities:

- i. Planning of activities and programmes to declare the Green Policy of the college and those related to the improving environment in the campus, disaster management, and health.
- ii. Uploading of pictures and videos of the activities into the social media accounts of the college and website.

The aforementioned committees must also constitute the Environmental Management Committee (EMC), to define roles, responsibilities and authorities of key personnel, commit to staff training, maintain effective communication channels, adopt effective documentation and operational controls and maintain sufficient awareness



on emergency preparedness among the staff. The EMC should evaluate and ensure that all implemented programmes and processes are as per the Green policy of the College.

3. Audit Stage

i. Actual Auditing

The EMC plans and executes the actual visit of the external members/auditor of a concerned agency

ii. Checking of Documents and Evaluation

The auditor/ members of the auditing team evaluate the documents rigorously and suggest necessary recommendations.

iii. Review of Environment Policy

The auditor/members of the auditing team take the review of the Environment Policy by evaluation of documents as well as personal interviews of representatives of stakeholders (students and staff).

iv. Review of Programmes or Activities

The auditor/ members of the auditing team also takes the review of all the planned and implemented programmes or activities by evaluation of documents as well as personal interviews of representatives of stakeholders.

4. Post-audit Stage

i. The post-audit stage is the role of an auditor.

The auditor considers all the facts and observations of the audit together in concern with the Environment Management Committee (EMC).

ii. Evaluation of Findings

The auditor evaluates the findings on the basis of the following pointers

- a. Water Management
- b. Waste Disposal Management
- c. Energy Consumption Management
- d. Environmental Quality Management
- e. Health and Safety Management
- f. Carbon Accounting
- g. Using Renewable Energy



iii. Reporting with Recommendations

The auditor prepares a brief report of the audit along with recommendations in consultation with the EMC. The Green Audit Report of the college must be uploaded on to the college website.

iv. Preparation of an Action Plan

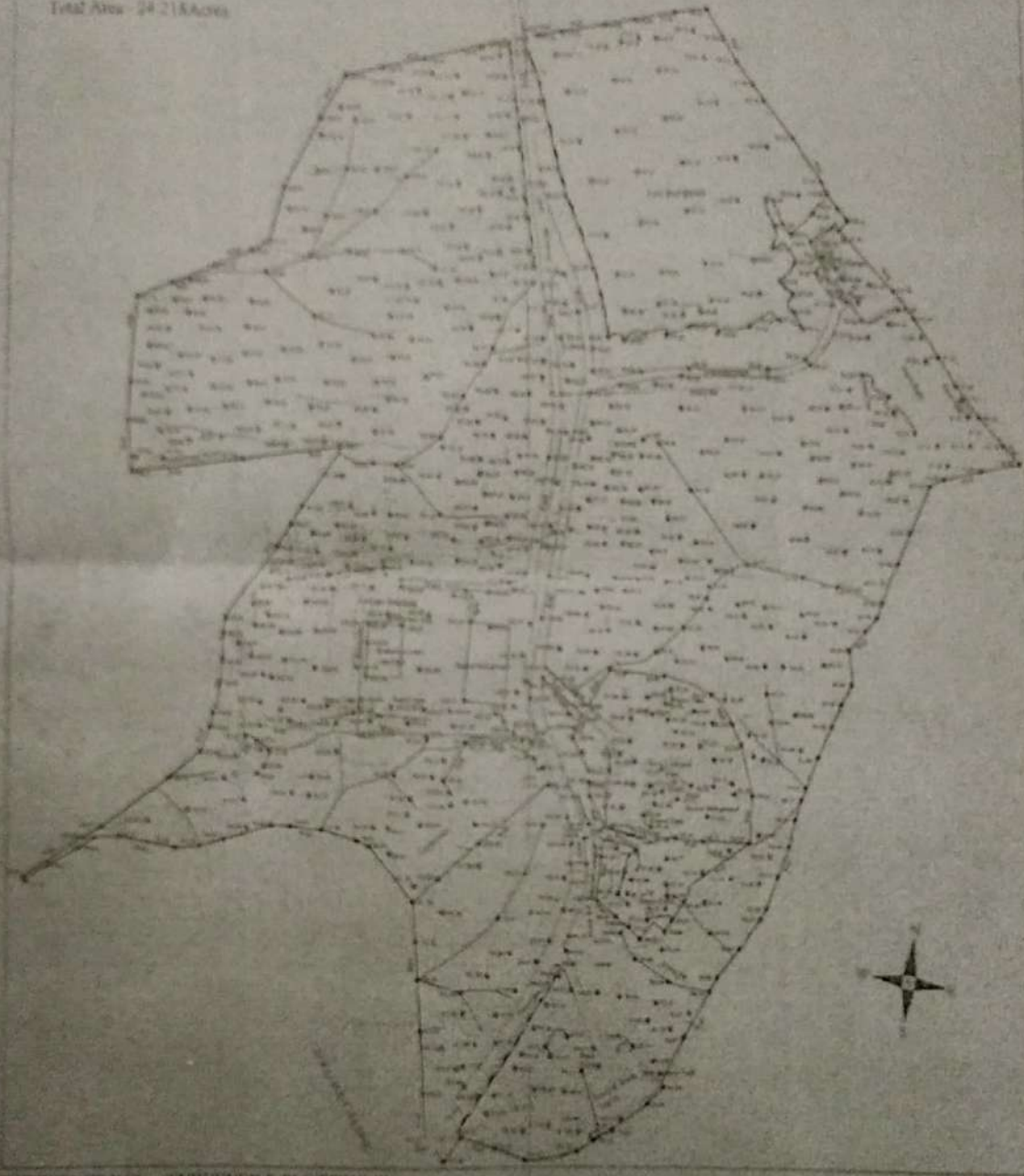
According to the recommendations given by an auditor the EMC should chalk out the action plan and accomplish it effectively.



LAND SURVEY MAP OF KIANG NANGBAH GOVT. COLLEGE JOWAL, JAINTIA HILLS

Plotting Scale 1:1
Contour Interval 1 Metre

Total Area - 98005.41 Sq.mts
Total Area - 1054821.91 Sq. feet
Total Area - 24.218 Acres



REFERENCE BOX SURVEYED & PLOTTING BY:

1. Name of Surveyor	VVVV
2. Date of Survey	
3. Name of Station	
4. Name of Station	

Surveyed by: _____
Checked by: _____
Date: _____
Signature: _____
Aust. Executive Engineer
Building Sub-Division
Jowal

