



# **ARMY INSTITUTE OF EDUCATION**

Plot M-1, Pocket P-5, Sec. CHI, Greater NOIDA  
(Affiliated to GGSIP University, New Delhi)

NAAC ACCREDITED & ISO 9000:2015 CERTIFIED INSTITUTE

**Report on Water usage and conservation in AIE campus**

**A small scale project by Research and Development Club**

## **A WATER CONSERVATION ACTION & IMPLEMENTATION PLAN FOR CAMPUS**

### **Project By**

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### **Introduction**

#### ***We Never Know the Worth of Water till the Well is Dry***

Water conservation not only saves money, it saves energy as well and ensures the health and wellbeing of all living beings and our environment. Collecting relevant data regarding the water usage and water conservation is the first step to plan an awareness enhancement program.

With this emphasis Research and Development Club of Army Institute of Education conducted a survey on Water Conservation and Implementation.

### **Objectives of the Project**

- To collect data on water budgeting.
- To collect data on water consumption
- Developing strategies, action plans, & implementation for water conservation
- To control water loss and reducing water wastage
  
- To reuse water which is suitable
- Facilities to conserve rain water

## Methodology

Data is collected through interviews with respective staff in charge like plumber, pump operator and estate supervisor. Form No 4 provided by MHRD is used for data collection.

## Analysis and Interpretation of Data

**Table 1 Details of Data Collected on Daily Water Usage and Wastage in Campus**

SI.No	Estimated Water Requirement	Consumption (In Litres)
	Total Supply of Water to College	25000 ltr/Day
	Residential Block	28000 ltr/Day
	Hostel	23000 ltr/Day
	Cleaning( open areas)	200 ltr/Day
	Sewer Cleaning	190 ltr/Day
	Drinking	4400 ltr/Day
	Gardens & Lawn	5000 ltr/Day
	Loss & Wastage	1500 ltr/Day
	Total Consumption	87290 ltr/Day

Table 1 shows that total water supply to the campus is 25,000 Litre, from that 200 Ltr is being used for cleaning of open spaces. For drinking 4000 ltr water is being used for drinking. In residential block 28000 Lts is required. For arboriculture 5000 ltr per day is required. An average of 23000 ltrs is required for hostel. Leaking of taps, overflow of tanks and unnecessary wastage per day an average of 5000 ltrs is wasted or lost.

**Table 2: Parameters for Campus Score in Water and status of Army Institute of Education according to parameter**

Item No	Criteria	Status
1	<b>Adequacy of water</b>	Water supply is sufficient to the usage of the residents and students of the campus.
2	<b>Plumbing adequacy of water taps &amp; sanitary fixtures</b>	Some of the taps are leaking otherwise process is doing regularly.
3	<b>Water efficient toilets</b>	All the toilets in hostel are European toilets. In college building dome t premise. Some problems are identified with the functioning of flush tanks.
4	<b>Dedicated staff for water management &amp; maintenance</b>	the campus is having plumber and pump operator and above them estate Supervisors are also there.
5	<b>Periodic mending &amp; repairs of toilets , leakages</b>	Proper mending and repair of toilets are there. Then also more attention is required
6	<b>Planting indigenous variety of plants and less water requiring plants</b>	Water is required for plants. That consume a major quantity of water. Trees like pala and Spanish cherry don't need water, but other plants need enough water.

From table 2 it is evident that the campus is having adequate quantity of water. As it is an old institute some of the fitting equipment are very old, that leads to leakage. With a very small effort the problem can be resolved. A good number of toilets are water effective but the toilets needs to be repaired for the proper functioning of flush tanks. The campus is a lush green one. Many plants are there that do nt need additional water. But the lawn area is vast and watering of lawn require more water.

## **Suggestions**

Based on the data and finding Research and Development club put forward the following suggestions:

- An awareness program to avoid long bath and shower should be given to all residents of both the hostels
- many taps are leaking that should be replaced with more functional one to avoid wastage of water.
- Overwatering of lawn should be controlled. Sprinkler system in lawn is advisable.
- Dual flush toilets will help to maintain the washroom clean and avoid over use of water.
- Recycling of wastage water after water purification is required like the same water can be used for cleaning utensils, cleaning open area, and watering of plants.
- Availability of waste water treatment
- Leak detection technology should be there. Maintenance staff should be on call to repair it.
- Landscape should be kept in such a way that it will help ground water recharging during rainy season and prevent water scarcity during summer.
- Educating students and staff through orientation programs are suggested.

## **Reference**

MHRD Document on Jal Sahkti Campus and Jalshakti Gram. August 2019