



Water Audit

Mission GSP

GSP helps the school community become familiar with its water. The tasks establish current consumption levels and practices of the school in water use, disposal and reuse.

Task 1 Choose your water audit team.

Task 2 How much water does your school use?

Task 3 What are the sources, supply and storage of water in your school?

Task 4 What are the water conservation practices followed in your school?

Task 5 Does your school harvest rainwater?

Task 6 Are the plumbing and sanitation facilities in your school adequate?

Task 7 Does your school reuse/recycle wastewater?

Task 8 Does your school reuse treated wastewater?

TASK 1 CHOOSE YOUR WATER AUDIT TEAM

Before you start, you must put together a team. An ideal team would consist of one teacher (Science or Social Science) to guide you during the audit. You would also require the help of the administrative staff of your school and other staff, such as the plumber, electrician and other maintenance staff. And, most importantly, five to 10 of your schoolmates.

Teacher: _____	
Administrative staff: _____	
Students: _____	

_____ Date: _____	

THE UNIT TO BE USED IN THE WATER SECTION IS LITRE (L).

TASK 2 HOW MUCH WATER DOES YOUR SCHOOL USE?

To start your water campaign, the first step is to know how much water the school actually uses for its day-to-day functioning. The next step would be to measure the amount used directly from the source – borewells or pipelines. This way you will account for the entire amount used per day and how.

Tooltip: To calculate the water your school uses in one day: Page 43

1. Please select the appropriate category for your school.

- Day Scholar: a school that works for six hours
- Day Boarding: a school that works for eight hours
- Residential: a school in which all of the students live together in the school campus during the academic year
- Day Scholar + Day Boarding
- Day Boarding + Residential
- Day Scholar + Residential
- Day Scholar + Day Boarding + Residential

2. Who uses/ consumes water in your school? (Write in numbers – for eg:

Visitors: 100 per month):

- Permanent (example: students, teachers, technical and administrative staff, guards, etc): _____
- Visitors (example: students from other schools, teachers from other schools, technical, NGOs, contractors and laborers, vendors, chief guests, etc): _____

Tooltip: Please provide the average number of visitors for any one month, between August – October.

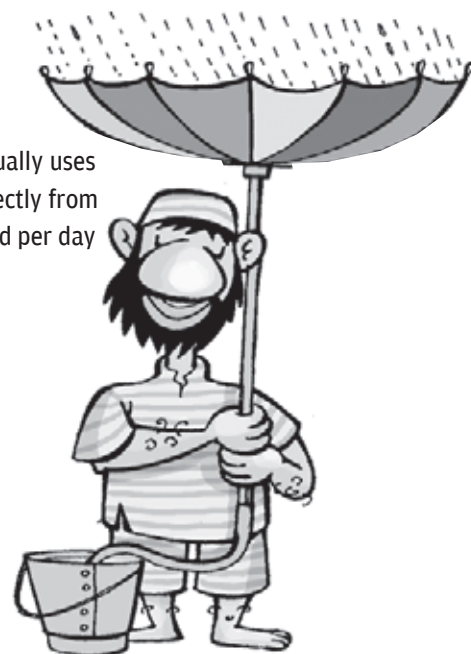
- Total users in the school _____ [c = a+b]

3. Calculate your school's water consumption, per activity:

Tooltip: The school will use glass (250 ml) for drinking during the audit period; they should know the volume of flush tank (if they have a flush) or volume of bucket they are using for washing clothes, etc.

To measure total water used in Kitchen, first measure the quantity of water (in litres) that could be used, before commencing the activity. Example: Use buckets, utensils, jars of known volume. Please monitor over a period of 15 working days.

Gardening tooltip: To measure total water used in Gardening, first find out what is the method of watering garden.



INDIA GETS 100 HOURS OF RAIN A YEAR. IF WE LEARN TO CATCH AND STORE THIS WATER, IT COULD RESOLVE THE WATER CRISIS.

- If water from water storage tank is used with hose pipes then measure the capacity of storage tank. Fill the storage tank before watering session. After watering the plants, measure the water left in the tank. Subtract the quantity of water left in the tank by total storage capacity of the tank.
- If garden is watered manually with buckets then measure the capacity of the bucket and multiply by number of times the bucket is filled to water plants.
- If sprinkler irrigation is used to water garden, then measure the quantity of water released by the sprinklers and multiply it by the time the sprinkler system works.

TABLE 1: Total water consumption of your school

Sr. no	Activity	Total quantity (litres per day)
1.	Drinking	
2.	Toilet flushing	
3.	Personal cleaning	
4.	Washing clothes	
5.	Cooking	
6.	Cleaning utensils	
7.	Washing vegetables	
8.	Mopping floors	
9.	Gardening	
	Total	

TASK 3 WHAT ARE THE SOURCES, SUPPLY AND STORAGE OF WATER IN YOUR SCHOOL?

Your school must be sourcing water from any one or a combination of sources. The water audit team will track the supply system and will find out how many sources of water are used.

The following questions will help students understand where their water is coming from – at a cost.

- The audit team will have to interview the administrative staff to get information for the table below.
- Your school will have multiple sources as well as multiple suppliers. Please choose accordingly.
- This activity has to be done during any one month during the audit period (July - October). Ideally, the activity is done best during September when the weather is not very hot and your consumption could be lower than in the summer months.

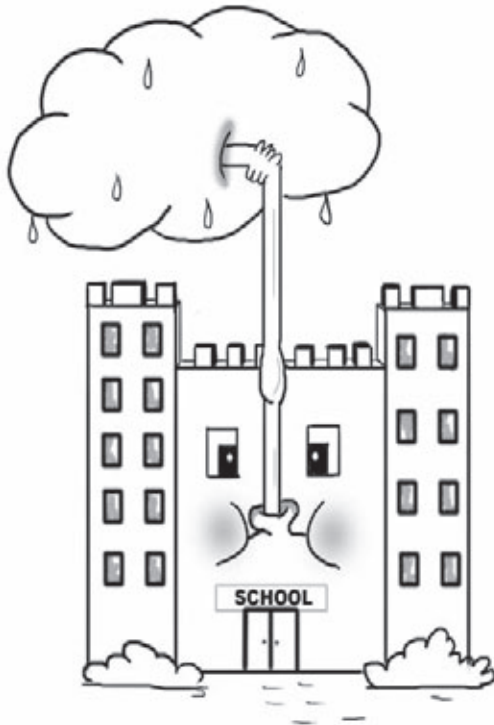
Where does the water your school uses, come from?

4. Sources of water (tick the correct options):

- Ground water
- Surface water
- Rain water
- Recycled wastewater

5. Who supplies the water in your school? (tick the correct options):

- Municipality
- Panchayat
- Public Health Engineering Department (PHED)
- Private supplier
- School's own supply (Borewell, rainwater harvesting facility, etc)



Timing	Duration (min)
Morning	
Afternoon	
Evening	
As and when required	

6. Does the school get daily water supply?

Yes No

If supply of water is daily, please tick any one:

- ≤1 hours
- 2-6 hours
- 7-12 hours
- 13-18 hours
- 19-24 hour

If supply of water is not daily, please tick any one:

- ≤1 day
- 2 days in a week
- 3 days in a week
- every alternate day in a week

TASK 4 WHAT ARE THE WATER CONSERVATION PRACTICES FOLLOWED IN YOUR SCHOOL?

7. What are the water conservation practices your school follows? Please tick "Yes" if your school follows the below mentioned practices: "(Do upload images/ jpegs online, where relevant)"

Sr. No	Water conservation practices	Yes	No
1.	Does your school have a water and sanitation policy?		
2.	If your school has an eco-club, do they have a team for monitoring water consumption?		
3.	Do all tanks in the school have float valves installed to stop overflow?		
4.	Do the drinking water points have spill proof taps to check overflow?		
5.	Does your school use appliances with a quick-wash setting?		
6.	Are dual flush systems installed in the toilets?		
7.	Does your school encourage bottled water for drinking water?		
8.	Does your school grow local plant species which require limited amount of water to grow?		
9.	Has your school initiated any water conservation steps in the school or outside, in the past one year?		
10.	Does your school use a drip or irrigation system?		
11.	Any other step taken for water conservation? (if Yes, please specify)		

TASK 5 DOES YOUR SCHOOL HARVEST RAINWATER?

Rainfall (precipitation) is the primary source of freshwater on land. In this section, you will find out how much rainwater your school can catch, and how much your school can harvest. Rainwater harvesting is a traditional, time-tested method of collecting rainwater and using it to recharge groundwater or storing it for other uses.

Tooltip: To know the types of catchment: Turn to Page 43 & 44

8. Do you have rainwater harvesting (RWH) system in your school? Yes No
9. If yes, does your school harvest different catchments?
 Yes No
- If 'Yes' please tick what is applicable to your school:
 Rooftop

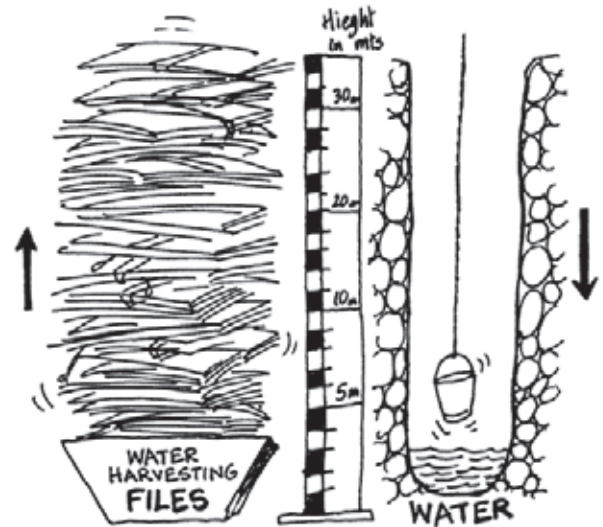
- Paved
- Unpaved
- Rooftop + Paved
- Paved + Unpaved
- Rooftop + Unpaved
- Rooftop + Paved + Unpaved

10. How does your school harvest rainwater?

- By storing
- By recharging groundwater
- Combination of both

If your school only stores rainwater, please tick the use of stored rainwater:

- Drinking
- Gardening
- Mopping
- Toilets
- Washing vehicles
- Kitchen (Cooking/Washing vegetables and utensils)
- Shower, Brushing teeth, Bathing, Hand washing
- Swimming Pool



GOVERNMENT OF INDIA GOES ABOUT HARVESTING WATER

11. If your school practices rainwater harvesting, then what is the ratio between storage and recharge?

- Storage = Recharge
- Storage > Recharge
- Recharge > Storage
- Only Recharge
- Only Storage

12. How much area in your school is harvested?

- 10 to 20 per cent
- 20 to 30 per cent
- 30 to 40 per cent
- 40 to 50 per cent
- 50 to 60 per cent
- 60 to 70 per cent
- 70 to 80 per cent
- 80 to 90 per cent
- 90 to 100 per cent

13. Please select (from the list given below) the rainwater harvesting structures present in your school:

- Conduits
- Gutters
- Filter unit
- First flush
- Storage tank
- Collection sump
- Pump unit
- Recharge structure

14. Does your school have rainwater storage tank? Yes No

If yes, please provide:

- a. Total number of storage tanks: _____
- b. Total capacity of each storage tank (litres): _____
- c. Location of tanks:
 - Underground
 - Above ground
 - Semi underground
 - Underground + Above ground
 - Above ground + Semi underground
 - Underground + Above ground + Semi underground
- d. Material options for tanks (please tick what is applicable):
 - PVC
 - RCC
 - Brick
 - Combination of PVC + RCC + Brick

15. Please share the details about Filters (please tick what is applicable):

- a. Where is your filter unit?
 - Before storage tank
 - Before recharge system
 - Before both storage tank and recharge system
 - We do not use filters
- b. Types of filter used in your school:
 - Sand gravel filter
 - Charcoal filter
 - Readymade on line filter
 - Chemical used

16. Does your school have groundwater recharge structure? Yes No

If yes,

- a. Please share the total number of groundwater recharge structures _____
- b. Please tick the type of groundwater recharge structure used in your school:
 - Percolation pit/tank
 - Recharge through abandoned dug well
 - Recharge through abandoned tube well/borewell
 - Recharge pits
 - Recharge trenches
 - Recharge through ponds/water bodies
 - Soak pit



17. Please share the maintenance and monitoring details of rainwater harvesting structure/s of your school by answering the questions below:
 - a. Rate your catchment on cleanliness (please upload pictures on GSP Audit portal):
 - Good
 - Average
 - Poor
 - b. Does your school clean your catchment and RWH system? Yes No
 If yes, please specify when does your school clean the catchment and RWH system?
 - Pre-monsoon
 - Post-monsoon
 - Does not follow any such pattern
 - c. Does your school monitor the groundwater level? Yes No
 If yes, please specify, when does your school monitor the groundwater level?
 - Pre-monsoon
 - Post-monsoon
 - Does not follow any such pattern
 - d. What is the trend of groundwater level in your school across the year?
 - i. Decrease in groundwater level

If there was a decrease, please specify:

 - Less than a metre annually
 - 1-5 metre annually
 - More than 5 metres annually
 - ii. Increase in groundwater level

If there was an increase, please specify:

 - Less than a metre annually
 - 1-5 metre annually
 - More than 5 metres annually
 - iii. No change

- e. Is there any improvement in the groundwater quality at your school after the implementation of the rainwater harvesting structure? Yes No
 (This question is for schools whose RWH structure is more than one year old)
 If your school does not have rainwater harvesting structure(s), then you can calculate your school's rainwater harvesting potential, (Using Formula on Page 43): _____ litres

TASK 6 ARE THE PLUMBING AND SANITATION FACILITIES IN YOUR SCHOOL ADEQUATE?

Hygiene and sanitation facilities are vitally important for a child's health. Lack of these hampers attendance, especially of girls in senior grades.

18. Please share details about sanitation and hygiene practices in your school:

Sr. no	Infrastructure details	Yes	No
1.	Does the school have separate toilets for males and females?		
2.	Are there sufficient toilets* for women in your school?		
3.	Are there sufficient toilets** for men in your school?		
4.	Are the toilets accessible and safe to use for children?		
5.	Are the toilets accessible and safe to use for differently abled children?		
6.	Are the toilets accessible and safe to use for differently abled staff (teaching and non-teaching)?		
7.	Are the toilets situated in the right location in terms of privacy and safety?		
8.	Is there sufficient light during day time?		

Note: * Toilets for women include wash basin and water closet.
 ** Toilets for men include wash basin and water closet and may or may not include urinals.

19. How many drinking water taps do you have? _____
20. How many hand pumps do you have? _____
21. How many ablutions taps (taps used for washing hands only) do you have? _____
22. How many water closets (used for defecation and urination) do you have? _____

23. How many urinals (strictly used for urination only) do you have? _____

24. How many other water outlets (example: taps in playfields, sprinklers, swimming pool) do you have?

25. Please share details about water supply and cleaning of toilets in your school:

a. Is there a water storage system in place to supply water in the toilets?

Yes No

b. Is the water supply sufficient?

Yes No

c. Are the toilets cleaned?

Yes No

If yes, please specify

Once a day

Twice a day

More than twice a day



TASK 7 DOES YOUR SCHOOL REUSE/RECYCLE WASTEWATER?

Water recycling is the process of treating waste or used water, in order to upgrade its quality, so that it can be used again. When water, once used for a particular purpose, is put to use again, it is then being reused.

26. Does your school have a wastewater treatment facility?

Yes No

a. If no, please specify the fate of wastewater:

Wastewater flows directly to the drains

Used for groundwater recharge

Used for gardening and horticulture

- b. If yes, please specify the fate of treated wastewater:
- i. Where does the water get treated?
 - Inside your school
 - Outside your school

 - ii. Who treats the wastewater outside your school?
 - Municipality
 - Physical Health Engineering Department (PHED)
 - Panchayat
 - Community driven initiative

TASK 8 DOES YOUR SCHOOL REUSE THE TREATED WASTEWATER?

Does your school reuse the treated wastewater?

- Yes No

If yes, how does your school reuse wastewater?

- Gardening
- Flushing
- Recharge ground water

If No, Please specify the fate of wastewater?

- Wastewater flows directly to the drains
- Used for groundwater recharge
- Used for gardening and horticulture

Please upload a flow chart (hand drawn) of the wastewater treatment process.
