



GREEN SCHOOLS PROGRAMME



GSP Audit 2016 Performance Report

Nirmal Bhartia School
New Delhi, Delhi

Audit Coordinator: Sriparna Mukherjee
Category: Green School



Introduction

Dear Principal,

Thank you for taking part in GSP Audit 2016, an initiative to make your school resource efficient and to inculcate green practices in your students.

As Anil Agarwal, founder-director, CSE, rightly said, '...that as they (children) grow older, it is important they begin to understand how human beings and human societies interact with their environment for their survival and their growth, how these human-nature interactions become a part of a society's culture, and why it is important to rationalize our relationship with our environment.'

The Green Schools Programme (GSP) is about fostering environmental literacy. It takes the classroom into our lives. The joy is not just in the learning. The joy is in the experience of making change in our environment. We then live the change. GSP has been built on the twin objectives of "Learning by doing" and "making change work" to help schools audit the consumption of natural resources within their premises, and assess themselves as environment managers.

Like last year, we were overwhelmed with the response we received from across India. More than 2500 schools registered for the Audit, and 700 submitted the Audit. The performance report of the school is based on the data submitted by the schools. Therefore, the school needs to make sure that the data entered is correct to the best of their knowledge. We hope that as the school continues to audit their consumption each year, they will refine the data collection and complete the report with honesty. Our endeavor is to provide India with a green report card of schools with credible data and this can be done only if schools provide accurate data.

We hope that your students immersed themselves in the activities and learnt about rainwater harvesting, waste segregation at source, non-polluting modes of transport, eating healthy, etc. While the performance report will give schools the baselines and is an indicator of the progress that the schools make on the environment front - year-on-year, we hope that your school continues to participate each year, and build a generation of environmentally responsible citizens.

This report will help you move beyond "awareness activities" such as cleanliness drives, poster-making, debates etc, which are, undoubtedly, important, but will also help you to identify long term activities that will deliver measurable impacts.

Hope, that in coming years, your school continues to participate and manage resources efficiently within your school.

Look forward to receiving your Audit report in 2017!

Warmly,

The GSP team

Introduction

A snapshot GSP Audit 2016 is as follows:

Rating	Score (Percentage)	Number of Schools
GREEN	70% & above	71
YELLOW	Between 50-69.9%	208
ORANGE	Between 35-49.9%	352
RED	Below 34.9%	69





Sources of air pollution are many and diverse. But none are as lethal as vehicles as they are responsible for very high exposure. Vehicular emissions take place in the breathing zone of people. Experts say that those who live or work in close proximity to heavily travelled roadways are subject to high levels of exposure. No wonder that during the past few years, we have been desperately looking out for tools to assess the problem and find ways to combat the menace.

Remember:

- > Circulation of fresh air keeps the mind and body healthy, therefore the total window-floor ratio of a class-room should be more than five per cent.
- > The fuel type should be switched from diesel to petrol to CNG to prevent ambient air quality from deteriorating further.
- > Your school should motivate most of the permanent population to use non-polluting mode of transport such as walking or cycling, or at least use a sustainably motorized vehicles such as buses, public transport.

Your School's Performance

Your school fulfils few norms of Air Quality check. You can improve by considering the recommendations through the assessment below. Overall, school has done average in air section.



Classrooms Window Floor Ratio (WFR)

53.85 % Average WFR

Your window-floor ratio is more than ten per cent. It suggests that your school fulfills the oxygen requirement of the community by providing more openings for better air circulation. Please note that this result is from the sample you have provided.



Ownership of Vehicles

A combination of school-owned and operator-owned vehicles

Good that your school uses 'operator owned' vehicles. It will be ideal if you can reduce the number of school-owned vehicles, and move to operator-owned. Hope your school has enough space within the school premises to park the vehicles owned by the school.



Age of Vehicles

Almost all vehicles are old

As you know that vehicles that are older than 15 years emit very high Levels of pollutants. We suggest that that you keep a check on the age of all vehicles.



Air Conditioning in Vehicles

No air conditioners in the vehicles

Good that none of your vehicles are air-conditioned. Air conditioners in vehicles use a lot of fuel and release harmful toxins further polluting the air. You save a lot of fuel and keep the air clean around the city!



PUC Certificates

All vehicles with PUCs

PUC certification should be up to date for all your vehicles, and yours is! Good that all the vehicles have up to date PUC certification.



Parking Area for Vehicles

Parking space for all vehicles

Its good that there is adequate parking area for school-owned vehicles. More the vehicles, more the area required. Therefore, encouraging students to use public transport will ensure more space for school or move to operator-owned vehicles, when your school needs to replace vehicles.



Type of Fuel

Good your school doesn't use diesel or petrol as a fuel.

Good that most of your vehicles run on CNG!

Good that your school doesn't use LPG as a fuel.



Mode of Commuting

More than 50% population using sustainable motorized vehicles and less than 50% population using Non- polluting mode of transport

Good most of the students and staff use Sustainable Motorized Vehicle (SMV). School should now motivate them to use Non- polluting mode of transport (NPT).

The impact of 'global warming' has already reached scorching levels, and is rising rapidly. Saving energy is the first step to energy conservation. Switching off electrical gadgets when they are not in use and switching the usage of bulbs to CFLs/ LEDs are great ways to start.

Remember

- > Per capita per day electricity consumption should be well within the norms (46.5 MJ) and we all know that our non-renewable resources are depleting faster than they can re-generate.
- > Switching over to renewable resources and expanding its usage is the only available option.

Your School's Performance

The energy consumption of your school partially falls within the norms. Your school has scored average in energy section. It is recommended that your school explores or experiment with renewable energy sources.



Energy per capita per day consumption

School's Consumption meets the requirement

Your per day per person average consumption of energy meets the norm.

Category	Per capita/day energy consumption
Day Scholar	46.2 MJ
Day Boarding	49.8 MJ
Residential	24.6 MJ
Scholar + Boarding	48.0 MJ
Scholar + Residential	49.8 MJ
Boarding + Residential	46.2 MJ



Sources of Energy

Your school does not use any renewable source of energy. We hope that in the near future you switch to 100% renewable sources of Energy!

Food has been at the centre of policy debate in India for many years, as more than 20 per cent of the country's population suffers from undernourishment. Meanwhile, childhood obesity is also alarmingly on the rise globally as well as in India. Given India's dubious distinction of carrying the twin burden of under nutrition and overfeeding, we need to be extra cautious.

We all are aware about the ill-effects of Ultra Processed Packaged Food (UPPF) that has high fat, sugar and salt content in it. This UPPF category is one of the most popular categories in today's market.

Remember:

- > Avoid UPPF in school canteens, and encourage children to eat healthy and traditional foods/ beverages.
- > Sponsorship by UPPF brands should be avoided.

Your School's Performance

The food sold in your school canteen is processed, packaged or fast food, which is not good for the students. We recommend that you push students towards Good Food.



What kind of food is being served / sold in your school

Your school sells ultra processed packaged food (UPPF) items daily in the campus - a practice that needs to be discouraged as UPPF items are high in fats, salt and sugar and harm children. We suggest that with the beginning of the new academic session, unhealthy food items be substituted with local and seasonal delicacies.



Does the school distribute packaged food items as rewards during schools events.

No

Ultra processed packaged food (UPPF) not only has ill effects on the health of the students but are also negative environmental impacts. We hope you that you serve local/ traditional snacks and discourage students to eat UPPF.



Does the school distribute chocolates/similar products as refreshments during schools events?

No

Students are easily influenced by the fancy brand advertisement and promotions. It is great that your school doesn't promote such brand promotions and advertisements.



Are your school events such as quiz shows, talent shows, debates sponsored by food companies/brands?

No

Students are easily influenced by the fancy brand advertisement and promotions. It is great that your school doesn't promote such brand promotions and advertisements.

Your school grounds can provide excellent educational opportunities for creating awareness about land resources and the natural world around you, as well as the land-use pattern. The biological diversity supported by an area is a good indicator of its ecological well-being. A proper management of land resources can transform the grounds into biologically diverse outdoor classrooms and healthy open spaces.

Remember:

- > Congestion on land (more buildings and inadequate green cover) leads to pressure on resources and hence on our environment.
- > We all know that a mind with plenty of oxygen has a greater power to grasp things. And for more oxygen we need more trees - our only oxygen factory.
- > To keep these oxygen factories healthy, we should not use chemical pesticides to raise them.

Your School's Performance

Good your school has plenty of green cover and that too, without using any chemical-based pesticides. Though the norms say that minimum 33% of your total land should be green cover, we encourage that you target to increase your green cover by 10 - 15 per cent in next two years!



Total Green Cover

Your school has the required green cover but aim to increase the cover by 10 - 15 percent in the next two years.



Use of Pesticide

No

Your school does not use any sort of chemical pesticides. Hope that you compost your waste and make your own organic fertilizer!

The right to water is really the right to life and livelihood. Just as we cannot live without water, a country cannot survive if it is water-stressed. This resource determines our future, and acts as a driving force for our economic growth. Even today, the government admits to not being able to provide 'safe drinking water to more than half the country's population. Poor sanitation and unsafe drinking water account for a substantial part of the disease burden in India, contributing to diarrhea, cholera, typhoid and jaundice.

Remember:

- Children should get adequate amount of water required per day starting from drinking to flushing to mopping floors to everything.
- Catch rain where it falls. Today, rainwater harvesting has evolved as an appropriate measure to overcome the water scarcity plus water logging due to excessive rains.
- Recharge groundwater. This should be done irrespective of whether the area has high ground water level or low because it's high time to take preventive measure to stop further depletion of water table.

Your School's Performance

Your school does not provide water as per the prescribed level as well as all the sanitation facilities does not have load under the prescribed norms. Your school's score in water section is average. Hope you take suggestions and become a water efficient school at the earliest.



Per Capita Water Consumption

27.59 litres per person/day (Per capita consumption is more)

Your school's per person per day consumption is more than it should be. Refer to the table to see the recommended consumption, and review where wastage of water can be minimized.

School Average - CSE recommended consumption of water, per capita per day	
Type of School	Average consumption(in Litres)
Day Scholar	13-17
Day Boarding	15-25
Residential	125-135
Scholar + Boarding	14-21
Boarding + Residential	70-80
Scholar + Residential	50-76
Scholar + Boarding +Residential	51-59



Source of Water

You use a combination of either surface + rainwater or surface + recycled water or rainwater + recycled water. All of these combinations demonstrate that your school is not extracting ground water, but is making an effort to either catch rainwater or treat waste water for further use.



Does your school get daily water supply?

Yes

Please ensure that your water supply is adequate, so that you can meet required per capita income.



Water Conservation Practices

Your school should look into this water conservation practices to become more water efficient: Float valves installed to stop overflow, Spill proof taps to check overflow, Appliances with a quick-wash setting, Dual flush systems installed in the toilets, Local plant species which require limited amount of water to grow, In initiating any water conservation steps in the schools and outside, Using a drip or irrigation system



Rainwater Harvesting

Yes

It's really good that your school has rainwater harvesting system. We are glad that your school recognises how important rainwater harvesting is!



Does your school harvest different catchments

No

Your school has rainwater harvesting system, which indirectly means your school must be catching rainwater from atleast one of the catchments: Rooftop, Paved area or Unpaved area. Please fill in the correct details for better analysis of your reports.



Harvested Area

By recharge ground

Recharging the ground water is a very good practice.



Groundwater recharge structure

Yes

Recharging the ground water is a very good practice.



How much area in your school is harvested

21 to 30 per cent

Your school's rainwater harvesting area is 21 to 30 per cent! We hope you continue with this green practice and expand the area in the near future.



Catchment Cleanliness

Good

Good that the catchments are clean and well maintained!



Does your school clean your catchment and system

Yes

Good you are regular with cleaning the catchment.



Monitoring Rainwater Harvesting Efficiency

Yes

Its good that your school monitors the structure for its efficiency.



If your school's RWH structure is more than a year old, is there any improvement in the groundwater quality after the implementation of the RWH structure?

Yes

Its good that your school monitors the structure for its efficiency.



Load on Drinking Water Taps

You have the required number of drinking water taps in your school. Please refer to the table for prescribed norm.

Category	Load per drinking water tap	Load per ablution tap	Load per urinal	Load per water closet
Day Scholar	50 people	50 people	50 people	45 people
Day Boarding	50 people	50 people	40 people	35 people
Residential	50 people	50 people	30 people	25 people
Day scholar + Residential	50 people	50 people	50 people	35 people
Day boarding + Residential	50 people	50 people	35 people	30 people
Day Scholar + Boarding	50 people	50 people	50 people	40 people



Hand Pumps

You do not have the hand pumps in your school. Good that your school is not extracting a lot of ground water.



Load on Ablution Taps

You have the required number of ablution taps in your school.



Load on Water Closets

You have the required number of water closets (used for defecation and urination) in your school.



Load on Urinals

You have the required number of urinals (strictly used for urination only) in your school.



Water Outlets

You have many water outlets in your school. Please ensure that you are not extracting too much of ground water.



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

Yes

You have a water storage system in place to supply water in the toilets



Is the water supply sufficient?

Yes

You have enough water supply.



Are the toilets cleaned?

Yes

Good that your toilets are cleaned everyday. Cleaning of toilet more than once a day is necessary.



Does your school have a wastewater treatment facility

Yes

Good that your school has a wastewater treatment facility. Its really important that we treat our own wastewater.



Does your school reuse the treated wastewater?

Good that the treated wastewater is used within your school.



Waste is another headache arising at an alarming level. Where to dispose waste? How to dispose waste? What to do with the waste? We feel one of the easiest solution could be waste segregation. We should feed it into our system that no matter what, we will segregate our waste, even if it gets mixed after it goes out from our homes/schools.

Remember:

- > Segregation at source is very important.
- > Every class should have minimum of two dustbins to collect wet and dry waste.
- > Schools should have a composting facility to manage the wet waste in the school premises itself.
- > Send e-waste to Authorised dealers.
- > Do not burn waste in school premises, especially horticultural waste. Alternatively, composting should be done by horticultural waste.
- > Waste should be sent to designated dumping or landfill sites.
- > Schools should have a waste policy that is to be practiced in schools.

Your School's Performance

You have done good in this section. Your school manages most of the waste. We hope that through the assessment below you will take what is required to make your school a waste management efficient school.



Segregation of Solid Waste

Yes

Your school segregates Waste at source. Inculcating this habit of waste segregation at source among students can help reform the waste related problem at a bigger level.



Waste Collection Points

Most of the collection points have two or more than two dustbins for different categories of waste. A good practice! We encourage that students learn to segregate waste at source.



Quantity of Waste Generated

Well done! Your school's per person per day waste generation is according to the norms.



Recycling of Waste

Your school recycles most of its waste. You recycle 69.36 per cent of waste. We hope you are able to become waste efficient school at the earliest.



Waste Composting

Yes

Your school has a composting facility and we hope that you are using it to its potential.



Textbook Reuse

Yes

It is great that you encourage the school community to reuse textbooks.



Waste Destination

Designated dumping site (Dhalao)

Your school makes sure that the waste reaches the designated site for waste disposal. Try to recycle more of your waste within the school!



Burning of Waste

No

It's great that you do not burn waste. This practice of should be instilled in kids so that they discourage burning waste even outside the school.

Thank You

Hope that each year your school will participate in the GSP audit and build a cadre of environmentally responsible citizens, in addition to moving up the rank to become the # 1 Green School in India!