A GSP Solar 30 workshop for teachers from Himachal Pradesh

UNDERSTANDING AND USING RENEWABLE ENERGY IN A CLIMATE-STRESSED WORLD

OCTOBER 9-11, 2022

GREEN SCHOOLS PROGRAMME
Environment in Education

- In 2004, the Supreme Court ruled that environment should be integrated in education at all stages
- Environment Education to be integrated within EVS (Environmental Studies) as per National Curriculum Framework (NCF) 2005
- A 6-month compulsory course on environment for undergraduates from all disciplines
- NEP 2020 calls for curricular integration of environmental awareness

...yet Environment Education continues to remain in the fringes.
Environment in Education

Promoting an understanding of the environment amongst participants to facilitate a push towards a sustainable and equitable future
What is Green Schools Programme?

- Environmental education programme for schools
- Sensitizes students and school community to environmental issues
- Audit of resources consumed in school to monitor measurable impacts:
  - GREEN-YELLOW-ORANGE-RED
- Student-led, hands-on activities
GREEN SCHOOLS PROGRAMME

- In-depth focus on GSP verticals — Air, Energy, Food, Land, Water, Waste
- Overarching theme of climate change
- Range of initiatives: GSP Audit@Home, Online courses, GSP Forum of Schools that Segregate, webinars, publications, educational resources
- Launch of environmental website: Young Environmentalist

10,000+ students 2,000+ educators 1,000+ schools
An assessment of the extent to which an institution is observing practices that minimize harm to the environment.
• Recognize schools who have **demonstrated measurable change over the past years and improved** their management of resources

• Green School is about **our practice.**
GSP AUDIT 2021-22

- GSP Audit new avatar with focus on air, energy, waste
- **550 schools** across the country submitted GSP Audit
- Highest submissions from Punjab (74), Himachal Pradesh (49), Uttar Pradesh (38) and Rajasthan (36)
- 478 secondary schools and 72 primary schools
- 343 government schools; 43 government aided schools; and 164 private schools
GSP AUDIT 2021-22: SCHOOL RATINGS

- Green: 110
- Yellow: 195
- Orange: 184
- Red: 61
With HIMCOSTE’s support, CSE has been able to meaningfully engage with schools for the GSP since 2012

• More than 700 schools are registered with the programme from 12 districts.

• The GSP team has conducted teacher training workshops for more than 300 teachers since 2012.

• Awards to best school in the annual awards ceremony on June 5 every year.

• RE workshop in Shimla
  Science Fair in Bilaspur
  Solar 30 Initiative with HIMCOSTE
Number of registration and submissions from Himachal Pradesh
2015-2021

<table>
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<tr>
<th>Year</th>
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<th>Submissions</th>
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<td>2015</td>
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<td>2021</td>
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Website:  http://www.greenschoolsprogramme.org/
GSP School Dashboard
Personalised Digital Certificates, Performance and Response Report
Individual Digital Certificates
The Audit Team
GSP Aligned with Curriculum

MANAGING SOLID WASTE IN SCHOOLS

HOW GREEN IS YOUR SCHOOL?
An environmental audit for schools
Holistic Approach to Environment

Combating climate change

ENERGY
WASTE
WATER
AIR
LAND
FOOD
A selection of best environmental practices in schools across India
Air pollution is responsible for close to 13 per cent of deaths in India and its burden is highest in northern states of Delhi, Punjab, Uttar Pradesh and Haryana. In fact, an average Indian will live 1.7 years longer if the country is able to clean its air.

Air pollution has adverse effects on children, specifically. It has been found that children in polluted environment grow up with smaller lungs. Sources of air pollution are many and diverse. But none are as lethal as vehicles because they are responsible for very high exposure. Vehicle 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.

To know more about GSP's initiative on air pollution and explore the resource material, please go to the GSP website.

Remember:
- Your school can make an impact and ensure cleaner air in the surroundings by opting for carpooling and shifting to CNG run vehicles, if CNG is available in your area (CNG is a cleaner fuel).
- Encourage most of the permanent population to use non-polluting modes of transport such as walking or cycling, or use sustainable motorised vehicles such as buses and other public transport. Students in several schools have come up with new and innovative ways to discourage the school population to use private vehicles and incentivize them to use public transport or carpool.
- Practices to achieve cleaner air will bear little result without attempts to ensure that there is circulation of fresh air. Fresh air keeps mind and body healthy, which helps students concentrate better and stay alert. The total window-to-floor ratio of a classroom should therefore be more than at least five per cent.

Ownership of Vehicles
- School-owned vehicles
- This is not an ideal situation as it is better for schools to hire buses from a transport contractor rather than to own them. Sharing buses with an operator is recommended.

Mode of Commuting to School
- Percentage of Non-polluting modes of transport is: 82.82 %
- It is good that most students and staff use non-polluting modes of transport (NPT) like cycling and walking.

Road Worthiness Certificate
- Yes
- It is good that your school has Road Worthiness Certification for your vehicles. This certification implies that the vehicles are in a good operating condition and meet the

Type of Fuel
- The diesel consumption of the school is very high. We suggest considering the transition to cleaner sources of energy like CNG, if available in your area. The school authorities can also be encouraged to move to a more sustainable mode of transport. It is commendable that the school does not use petrol to meet its vehicle energy requirement. Your school doesn't use CNG as a fuel. We recommend transitioning to CNG in the future to become energy efficient.
Energy consumption

Main sources of energy

Renewable sources of energy
FOOD SECTION

Food service in school:
- Canteen / Mid-day meal?
- Foods served

Food the school promotes:
- Packaged food items
- Traditional food items
- Food during events

Monitoring Growth:
- Height & weight
- Tracking development
Audit Section: Land

Crucial school campus areas:
- Total site area
- Green area: Landscape & play area
- Land use pattern

Biodiversity in school:
- Flora & fauna / Plants & animals
- Count of ‘species’
- Native or exotic?
Water Section

Conservation – Practice and Infrastructure
- Does the school harvest rainwater?
- How much does it recycle?

• Consumption
• Source, Storage and Supply
• Water Sanitation
Segregation of waste at source

Types of waste generated, recycled and quantity of each
What is Solid Waste?

As defined in the Solid Waste Management Rules, 2016

“means and includes solid or semi solid domestic waste, sanitary waste, commercial waste, institutional waste, catering and market waste and other non residential wastes, street sweeping or silt removed from the surface drain, horticultural waste, agricultural and dairy waste, treated biomedical waste excluding industrial waste, biomedical waste and e-waste, battery waste, radioactive waste generated in the area of local authorities and other entities mentioned in rule 2”
Status of Solid Waste in India

The above data only accounts for the solid waste generated by urban India annually.

Source: Not In My Backyard, 2016, CSE
STOP PLASTIC
WHAT'S TO BE PHASED OUT

1. Earbuds with plastic sticks
2. Plastic sticks for balloons
3. Plastic flags
4. Candy sticks made of plastic
5. Ice-cream sticks made of plastic
6. Thermocol (Expanded polystyrene) for decoration
7. Plates made of plastic
8. Cups made of plastic
9. Glasses made of plastic
10. Forks made of plastic
11. Spoons made of plastic
12. Knives made of plastic
13. Straws made of plastic
14. Trays made of plastic
15. Stirrers made of plastic
16. Wrapping or packaging films around sweet boxes
17. Wrapping or packaging films around invitation cards
18. Wrapping or packaging films around cigarette packets
19. Plastic or PVC banners less than 100 micron thickness
20. Plastic carry bags less than 75 micron thickness (this will be revised to 120 micron thickness from 31st 2022)
21. Non-woven plastic with less than 60 GSM (Grams per square metre)
Municipal Solid Waste

What are the different types of solid waste?

- Dry/Non-Biodegradable wastes: metal scraps, paper, plastic, sanitary napkins, diapers and condoms
- Wet/Biodegradable wastes: kitchen and garden waste
- Domestic Hazardous wastes: CFLs, tube lights, bulbs, paint drums, mercury thermometers, expired medicines and used batteries

The SWM Rules include the following three waste streams into which all types of waste should be segregated.