



GREEN SCHOOLS PROGRAMME

Responses for Green Schools Programme Audit 2016

School Name: Nirmal Bhartia School

Address: Opposite Sector 14 Metro Station,
Dwarka, New Delhi, South West Delhi,
Delhi, India

Coordinator Name: Sriparna Mukherjee



AIR



ENERGY



FOOD



LAND



WATER



WASTE

Green Schools Programme

Centre for Science and Environment

41, Tughlakabad Institutional Area, New Delhi. India - 110062

Tel: +91-11 29955124, 29956110, 40616000

<http://www.greenschoolsprogramme.org/>

SCHOOL PROFILE

1

Name of the School / Institution

Nirmal Bhartia School

2

Address

Opposite Sector 14 Metro Station, Dwarka, New Delhi, South West Delhi, Delhi, India

3

Telephone Number (Landline Number with STD code)

(ISD) 91 (STD) 11 (NUMBER) 45609702

4

Mobile Number (Mobile Number with STD code)

(ISD) 91 (Number) 8745024721

5

Principal Name

Charu Wahi

6

GSP Coordinator Name

Sriparna Mukherjee

7

GSP Coordinator Email

amy@nirmalbhartia.org

8

GSP Coordinator Mobile Number

(ISD)91 (Number) 8745024721

9

Category Of The School

Day Scholar

10

School Shifts

Morning

GENERAL QUESTIONS

1

How many levels does your school have?

Lowest level of grade:1

Highest level of grade:12

2

Is your school single gender or mixed gender?

Mixed/Co-education

3

Which board of education does the school follow?

Central Board of Secondary Education

4

Total permanent population of the school

	Male	Female	Total
Students	458	338	796
Teachers	12	55	67
Non-Teaching Staff	53	20	73
TOTAL	523	413	936

4(b)

How many visitors visit your school

700

5

What is the total number of working days of your school in a year?

220

6

Month(s) in which the GSP audit was carried out?

Sep, Oct, Nov

7

Where is the school located?

Urban Area



AIR

Task 1: Air Audit Team

Teachers

Sno.	Name	Email
1.	Sriparna Mukherjee	Sriparna Mukherjee

Administrative staff

Sno.	Name	Email
1.	Charu Wahi	
2.	Jennifer John	
3.	Vishnu	
4.	Amy Madan	

Students

Sno.	Name	Email	Grade/Class
1.	Bipasha		12
2.	Preet		11
3.	Kartick		11
4.	Dinesh		11
5.	Neha		12

Task 2: Are the rooms in your school well-ventilated?

1 How many classrooms does your school have?

31

2 Window-floor ratio of classrooms in the school.

Details of the classroom (e.g. Class II section b)	X = Area of floor (LxB)	Y = Area of openings (LxH)	Percentage of the floor area being ventilated (Y/X x 100)
Nursery Sections a	49.40	26.60	53.85
Nursery Sections b	49.40	26.60	53.85
Nursery Sections c	49.40	26.60	53.85

KG Sections a	49.40	26.60	53.85
KG section b	49.40	26.60	53.85
KG section c	49.40	26.60	53.85
Class I a	49.40	26.60	53.85
Class I b	49.40	26.60	53.85
Class I c	49.40	26.60	53.85
Class II a	49.40	26.60	53.85
TOTAL	494.00	266.00	

Task 3: How eco-friendly are the vehicles in your school?

3

What is the ownership used by the vehicles used in your school? Please choose what is applicable?

A combination of school-owned and operator-owned vehicles

3(a)

Provide details of school-owned motorized vehicles .

	Buses	Cars	Vans	Others	Total
No. of vehicles	6	0	0	0	6
No. of vehicles more than five years old	6	0	0	0	6
Air conditioned	0	0	0	0	0
No. of vehicles with PUC done	6	0	0	0	6
Parking area (m2)	1983	0	0	0	1983

Supporting Documents

1. Document %288%29.jpg
2. Document %2810%29.jpg
3. Document %2812%29.jpg
4. Document %2814%29.jpg
5. Document %2816%29.jpg

3(b)

Specify the type of fuel used by your school vehicles:

	Diesel	Petrol	LPG	CNG	Electric	Hybrid
Bus	0	0	0	6	0	0
Car	0	0	0	0	0	0
Van	0	0	0	3	0	0
Other vehicles	0	0	0	0	0	0
SUB-TOTAL	0	0	0	9	0	0

Supporting Documents

1. Bus.jpg
2. 84E6C0E8.jpg

Task 4: How do you travel to school every day?

4

How many members of the school community use each type of transport:

	Students	Teaching Staff	Non Teaching Staff	Total
School Bus	492	19	0	511
Public Bus	0	0	0	0
School Transport(Other than bus)	16	20	0	36
Public transport (other than bus, Metro, car pool)	20	16	2	38
Taxi four-wheeler	0	0	0	0
Taxi three-wheeler	0	0	0	0
Personal four-wheeler	78	29	9	116

Personal two-wheeler	60	3	14	77
Bicycle	10	0	0	10
On foot	120	0	28	148
Others (non-motorised)	0	0	0	0
SUB-TOTAL	796	87	53	936

Task 5: How good is the air you breathe in your school?

5

How many students suffer from respiratory ailments ?

5

6

Does the school laboratory have air quality monitoring equipment?

No

No documents uploaded by the school.

6(a)

If No, is there an air quality monitoring station (private or government) close to your school?

No



ENERGY

Task 1: Energy Audit Team

Teachers

Sno.	Name	Email
1.	Sriparna Mukherjee	sriparna@nirmalbhartia.org

Administrative staff

Sno.	Name	Email
1.	Vishnu	

Students

Sno.	Name	Email	Grade/Class
1.	Neha		12
2.	Amodini		9
3.	Kanishka		9
4.	Manan		11

Task 2: How much energy does your school consume?

1 Does your school have access to an electricity bill?

Yes

Supporting Documents

1. Document %282%29.jpg
2. Document %284%29.jpg

2 Does your school have its own vehicles?

Yes

3 Provide the details of total energy consumed by the school

	Quantity consumed/monthly average	Energy consumed in Megajoules (MJ)	Type of use
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Electricity from the board (kwh)	170	612.00	1,2,5
Electricity from generator (diesel) (litres)	100	4560.00	1,2,5
Petrol (litres)	0	0.00	0
Diesel (litres)	0	0.00	0
CNG (kilogrammes)	1400	73360.00	4
Kerosene (litres)	0	0.00	0
Coal (kilogrammes)	0	0.00	0
Wood (kilogrammes)	0	0.00	0
Animal waste (kilogrammes)	0	0.00	0
Solar (kwh)	0	0.00	0
Wind (kwh)	0	0.00	0
LPG (kilogrammes)	42	2167.20	0
Piped Natural Gas (kilogrammes)	0	0.00	0
TOTAL	1712.00	80699.20	

Supporting Documents

1. 84E6C0E8.jpg

4

What appliances does your school have?

	Number	Size	BEE Star Rating
Air Conditioners	13	2tonn-2, 1.5tonn- 5, 1tonn-6	5 and 3
Refrigerator	4	175x4	5
Microwave	4	10each	3
Tube Lights	1129	14-18	-
CFL Bulbs	481	14 each	-
LED Lights	25	50x25	-

Fans	190	(75-85)x190	-
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Supporting Documents

1. 20161116_105828.jpg
2. 20161116_105759.jpg

Task 3: Is your school using any renewable sources of energy?

5

What is the average number of sunny days in your area?

230

6

Are there any alternate sources of energy employed/ installed in your school?

No

No documents uploaded by the school for energy chapter.



FOOD

Task 1: Food Audit Team

Teachers

Sno.	Name	Email
1.	Sriparna	sriparna@nirmalbhartia.org

Administrative staff

Sno.	Name	Email
1.	Jennifer	

Students

Sno.	Name	Email	Grade/Class
1.	Nitin		11
2.	Sonal		11
3.	kanishka		9
4.	Maithili		11

Task 2: Find out about the food service in your school.

1 Does your school have a provision/space to sell packaged food items within the campus

No

2 Does your school serve midday meals?

No

2(a) Do students bring their own lunch from home?

Yes

Supporting Documents

1. 20161117_140329.jpg
2. 20161117_140222.jpg
3. 20161117_140250.jpg

2(a)(1) How many students out of total student population bring home-made lunch?

780.00

2(a)(2) Of the students who bring lunch from home, how many bring packaged food?

0.00

2(a)(3) Do teachers have the responsibility to ensure that students are carrying lunch from home?

Yes

Task 3: What kind of food is served/sold in your school

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

	Please count all flavours/variants available in the school canteen separately	Total number of items sold in a month in the canteen	Month the food items were sold in
Savoury snacks and similar packaged food like chips, Kurkure, Cheetos, potato crisps, corn snacks, nuts and seeds, etc	0	0	0
Instant Noodles like Knorr, Cup-a-noodles, Top Ramen, Wai-wai, Yippee, Foodles, Maggi, etc	0	0	0
Potato fries and Burgers	1	600	10
Confectionery items (chocolate, candies, gums)	0	0	0
Ice-cream	0	0	0
Carbonated beverages	0	0	0
Sugar sweetened noncarbonated beverages	0	0	0
Packaged/Bottled Nimboo Paani/ Lassi/ Flavoured milk	0	0	0
Packaged/Bottled Energy Drinks	0	0	0

No documents uploaded by the school.

4 Does your school serve traditional Indian snacks?

Yes

4(a)

Please provide the details:

	Number of plates sold when on the menu
Samosas	1
Idli/vada and sambhar	2
Pav bhaji	2
Momos	0
Others	2

4(b)

Give descriptions for rare local snacks served in your school:?

Vada pao

5

Does your school serve traditional Indian beverages?

No

Task 4: What kind of food does your school promote?

6

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

No

7

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

No

8

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

No

Supporting Documents

1. 20161117_142714.jpg
2. 20161117_140808.jpg



LAND

Task 1: Land Audit Team

Teachers

Sno.	Name	Email
1.	Sriparna Mukherjee	sriparna@nirmalbhartia.org

Administrative staff

Sno.	Name	Email
1.	Brijwasi	
2.	Vishnu	

Students

Sno.	Name	Email	Grade/Class
1.	Bipasha		
2.	Sonal		
3.	Nitin		
4.	Manan		

Task 2: Measure the four critical areas of your school campus

1

Complete the table:

	Your school's area
Site area in square meter (m ²)	8,094
Ground coverage area	1,800
Green landscaped area on-ground	3,900
Surface parking area	1,983
Play area that is paved/ concrete on ground	660
Play area that has grass on ground	2,100
Service Area on ground	60
Roof and terrace area	1,623

Green cover on exposed roof & terrace	108
Total built up/constructed area	7,422
Total no. of floors	3
Others	0

Task 3: Explore the number of species of plants and animals in your school

3

How many species of plants and animals exist in your school?

	Native	Exotic	Total
Plants	50	20	70
Animals	10	1	11

Task 4: Find out if your school uses pesticides

4

Do you use chemical based pesticides in your school green cover?

No

Supporting Documents

1. 8FF4AA08.jpg
2. c1.jpg
3. c3.jpg
4. IMG_3549.JPG
5. 20161116_104801.jpg



WATER

Task 1: Water Audit Team

Teachers

Sno.	Name	Email
1.	Sriparna Mukherjee	sriparna@nirmalbhartia.org

Administrative staff

Sno.	Name	Email
1.	Vishnu	

Students

Sno.	Name	Email	Grade/Class
1.	Nitin		
2.	Sonal		
3.	Bipasha		
4.	Tanmay		

Task 2: How much water does your school use?

1

Calculate your school's water consumption, per activity.

Activity	Total Quantity (litres per day)
Drinking	3000
Toilet flushing	9000
Personal cleaning	1200
Washing clothes	0
Cooking	20
Cleaning Utensils	600
Washing Vegetables	0
Mopping floors	8000
Gardening	4000

Total	25820
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Task 3: What are the sources, supply and storage of water in your school

2 Where does the water your school uses, come from?

Ground water, Rain water, Recycled waste water

3 Who supplies the water in your school?

Municipality, School's own supply (bore well, rainwater harvesting facility, etc)

4 Does your school get daily water supply?

Yes

4(a) If supply of water is daily, please tick the correct option

2-6 hours

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

5 What are the water conservation practices your school follows.

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

Supporting Documents

1. IMG-20161116-WA0015.jpg
2. IMG-20161116-WA0039.jpg
3. IMG-20161116-WA0041.jpg
4. IMG-20161116-WA0045.jpg
5. 20161117_142545.jpg

Task 5: Does your school harvest rainwater?

6

Do you have Rainwater harvesting (RWH) system in your school?

Yes

6(a)

Does your school harvest different catchments?.

No

6(b)

How does your school harvest rainwater?

By recharging groundwater

6(b)(1)

Does your school have groundwater recharge structure?

Yes

6(b)(1)(i)

Please share the total number of groundwater recharge structures

2.00

6(b)(1)(ii)

Please tick the type of groundwater recharge structure used in your school:

Recharge pits

6(c)

How much area in your school is harvested?

21 to 30 per cent

6(d)

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

Recharge structure

6(e)

Rate your catchment on cleanliness:

Good

Supporting Documents

1. s1.jpg
2. s2.jpg
3. rw.jpg

6(f) Does your school clean your catchment and system (structure?)?

Yes

6(f)(1) Please specify when does your school clean the catchment and RWH system?

Pre-monsoon

6(g) Does your school monitor the rainwater harvesting structure for its efficiency?

Yes

6(g)(1) Please specify when does your school monitor the groundwater level?

Post-monsoon

6(h) What is the trend of groundwater level in your school across the year?

If there was an increase, please specify

6(h)(1) Please specify how much was the increase?

1-5 metre annually

6(i) 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

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

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

	Yes / No
Does the school have separate toilets for males and females?	Yes
Are there sufficient toilets for women in your school?	Yes
Are there sufficient toilets for men in your school?	Yes
Are the toilets accessible and safe to use for children?	Yes
Are the toilets accessible and safe to use for differently abled children?	Yes

Are the toilets accessible and safe to use for differently abled staff (teaching and non-teaching)?	Yes
Are the toilets situated in the right location in terms of privacy and safety?	Yes
Is there sufficient light during day time?	Yes

8 How many drinking water taps do you have?

32

9 How many hand pumps do you have?

0

10 How many ablution taps (taps used for washing hands only) do you have?

65

11 How many water closets (used for defecation and urination) do you have?.

	Girls	Boys	Common	Total
Number of toilets	34	73	15	122

12 How many urinals (strictly used for urination only) do you have?

44

13 How many other water outlets (example: taps in play fields, sprinklers, swimming pool) do you have?

12

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

Yes

15 Is the water supply sufficient?

Yes

16 Are the toilets cleaned?

Yes

16(a) If yes, please specify

Twice a day

Task 7: Does your school reuse/recycle waste water?

17

Does your school treat wastewater?

Yes

18

Does your school reuse the treated wastewater?

Yes

18(a)

How does your school reuse wastewater?

Gardening, Flushing

No documents uploaded by the school.



WASTE

Task 1: Waste Audit Team

Teachers

Sno.	Name	Email
1.	Sriparna Mukherjee	sriparna@nirmalbhartia.org

Administrative staff

Sno.	Name	Email
1.	Amy	

Students

Sno.	Name	Email	Grade/Class
1.	Akshul		12
2.	Virkien		10
3.	Shruti		10

Task 2: What is the waste segregation system in your school?

1 Does your school segregate solid waste?

Yes

1a Who segregates the waste at source?

1. Students and teachers
2. Housekeeping (Sweeper)
3. Gardener

2 Waste collection points in your school.

	Total No. of collection points	No bin	One bin	Two bins (wet & dry)	Three bins or more
Classrooms	31	0	0	0	31
Playgrounds	4	2	0	0	2

Common area (e.g. reception, corridors)	9	3	0	0	6
Staffroom	4	4	0	0	0
Laboratory	4	4	0	0	0
Canteen	3	2	0	0	01
Clinic/ Sick room	1	0	0	0	1
Library	1	1	0	0	0
Toilets	12	12	0	0	0
Others	5	5	0	0	0
Total	74	33	0	0	41

Supporting Documents

1. 20161117_135514.jpg
2. 20161116_110848.jpg
3. 20161116_110926.jpg
4. 20161116_110938.jpg

Task 3: How much waste does your school generate?

3

Determine the quantity of waste generated in your school. (in kilogram)

	Collection per month (Frequency may differ)
Garden/ horticulture waste	50
Kitchen waste	10
Paper	100
Plastic	10
Wood, glass, metal, classroom furniture	1
E-waste	1
Biomedical waste	0
Sanitary waste	1

Construction and Demolition (C & D) waste	0
Hazardous waste	0
Total Generated Solid Waste (in kilogram)	173

Supporting Documents

1. 20161117_141533.jpg
2. 20161117_141619.jpg
3. 20161117_142714.jpg

Task 4: How much waste does your school recycle/treat?

4

Does your school recycle any generated waste?

Yes

4a

Please provide quantity of which is applicable. (in kilogram)

	Quantity
Garden/ horticulture waste	40
Kitchen waste	5
Paper	60
Plastic	5
Wood, glass, metal, classroom furniture	0
E-waste	0
Biomedical waste	0
Sanitary waste	0
Construction and Demolition (C & D) waste	10
Hazardous waste	0
Total (in kilogram)	120

5

Does your school have a composting facility?

Yes

Supporting Documents

1. 20151014_112619.jpg
2. 20151116_120721.jpg

5a

What is the methodology used?

Other: Vermicomposting

5b

What is the quantity of compost that is generated per month(in kilogram)?

10.00

5c

What is the purpose of the compost that is generated per month?

For school garden

6





Does your school encourage students & teachers to reuse textbooks?

Yes

7

Table to understand whether internal or external waste recycling procedures are applied to waste.

	Local kabadiwala (the scrap collector)	Authorised dealer	Dumped at a designated community site	Internal procedure
Paper (e.g., used notebooks, used examination paper, subscription newspaper and magazines)	✗	✗	✗	✓
Plastic (e.g. plastic bottles)	✓	✗	✗	✓
Horticultural waste	✗	✗	✓	✓
E-waste (e.g. broken, unusable computers)	✗	✗	✗	✓
Hazardous waste (e.g. diesel fuel, battery)	✗	✓	✗	✗
Wood,glass, metal scrap, other scrap	✗	✗	✓	✗

Biomedical waste (e.g. waste from Nurse's room in school, e.g. band-aids, syringe)				
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No documents uploaded by the school.

Task 5: How does your school dispose waste?

8

What is the final destination for waste that is disposed of externally?

Designated dumping site (Dhalao)

No documents uploaded by the school.

9

Does your school burn waste?

No

10

Does your school have the following? If yes, please give the numbers.

	Total	Working conditions	Non-working condition
TVs	1	1	0
VCR or DVD players	1	1	0
Refrigerators and freezers	5	5	
Washing machines	0	0	0
Air conditioners	13	13	0
Heaters	2	2	0
Microwaves	4	4	0
Ovens	0	0	0
Toasters	0	0	0
Electric Kettles	2	2	0
Personal computers (CPU, mouse, screen and keyboard included)	95	95	0

Laptop computer (CPU, mouse, screen and keyboard included)	8	8	0
Notebook computers	0	0	0
Notepad computers	0	0	0
Printers	4	4	0
Copying equipment (Photocopiers)	2	2	0
Projectors	20	20	0
Whiteboards	15	15	0
Electrical & electronic typewriters	0	0	0
Pocket & desk calculators	10	10	0
Fax machines	1	1	0
Telex	0	0	0
Telephones	5	5	0
Pay telephones	0	0	0
Mobiles	9	9	0
Answering systems	1	1	0

Supporting Documents

1. 20161116_110648.jpg
2. 20161116_105759.jpg
3. 20161116_105828.jpg
4. 20161116_111118.jpg

11

Do you know that your E-waste can be collected by an authorised dealer or dismantler?

No

Task 6: School's initiatives

12

Does the school have a policy on waste?

No

13

Are there awareness drives with regard to Reduce, Recycle and Reuse?

Yes

No documents uploaded by the school.

13a

What form do these awareness drives take?

As part of the curriculum , As part of extracurricular activities such as guest lectures , By the showcasing of posters and stickers

14

Is the study of the environment integrated into the curriculum?

Yes

Supporting Documents

1. 20161117_142512.jpg
2. 20161117_141156.jpg
3. 20161117_141251.jpg
4. 20161117_142135.jpg
5. 20161117_141057.jpg



FEEDBACK

1

Has your school participated in the Green Schools Programme (GSP) Audit before?

Yes

1(a)

If yes, then in which year did your school first participate in the GSP Audit?

2013

1(b)

If yes, how many times have you done the audit?

3

2

Have teachers from your school participated in teacher interactive workshops organized by the GSP team?

Yes

3

Did you find the online information relevant to your environmental education activities?

Yes

4

Was the audit easy-to-understand and self-explanatory?

Yes

5

Did you understand the present format of the GSP?

Yes

6

Do you think your school will be a Green School (resource efficient) by 2019?

Yes

7

What would be the help required to make your school a Green School?

Some of the questions are vague and data collection is not possible for us. All the documents can not be uploaded as per the school guidelines, and i hope that it is not the criteria of judging. Recycling of waste water is also very much important but i personally feel that GSP this year has only focused on RWH that's quite surprising.

8

How would you rate the overall design of the audit?

Aspect	Good / Average /Bad
Content	Average
Distribution of time among tasks	Good

Sequencing of tasks	Good
Orientation for conducting tasks	Average

9

Would your school like to recommend any topic/s that you strongly feel should be added or deleted in the audit?

No

10

Could you finish all the tasks in given period of time online?

Yes

11

How many times did you contact the Green Schools Programme Team for guidance and counseling?

Once

12

Water being the focus this year, did you find the questionnaire in Water section helpful to make your school understand how to become water efficient?

Yes

13

Did your students enjoy doing the Water activities?

Yes

13(a)

How many students were involved in the activities?

8.00

Checklist of uploaded documents

1. PUC certificates of not more than five buses
2. Fuel Bills
3. Picture of School owned vehicles
4. Electricity Bill
5. Picture of 5 star appliances used by school
6. Traditional food items sold in canteen
7. Pictures of Green Cover
8. Pictures of landscaped area
9. Building construction plan
10. Pictures of bio-pesticides
11. Pictures of dustbins in classroom showing segregation at source
12. Pictures of playground with more than two dustbins
13. Picture of audit team weighing solid waste
14. Pictures of recycling units - composting pit, paper recycling machine, selling paper to kabadiwala, recyclers, etc
15. Pictures of Electronic items used by school and storage of non-working electronic items
16. Pictures of respective audit teams doing survey