7.1.3: Quality audits on environment and energy regularly undertaken by the Institution.

The institutional environment and energy initiatives are confirmed through the following

1. ***Green audit / Environment audit***
2. ***Energy audit***
3. ***Clean and green campus initiatives***
4. ***Beyond the campus environmental promotion and sustainability activities***

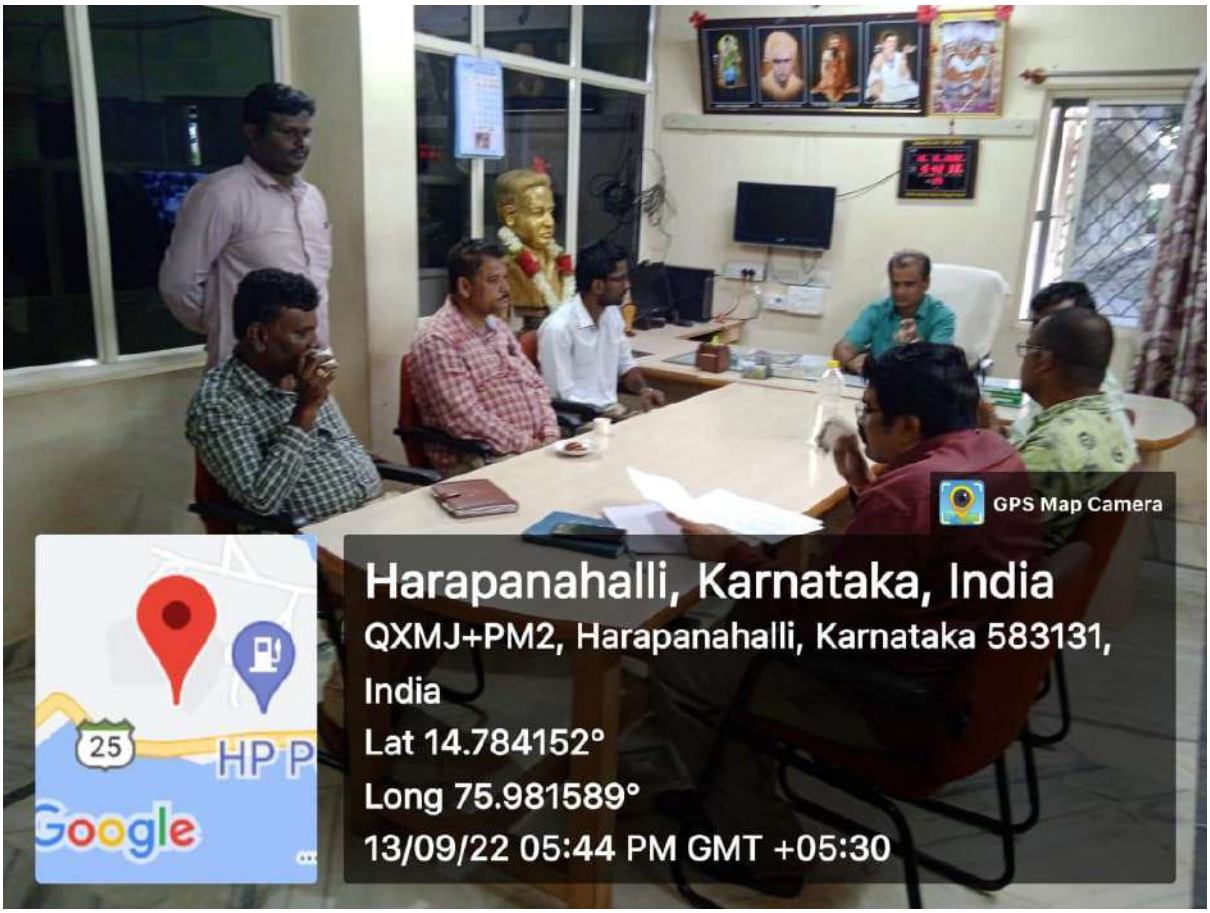
Options:

A. All of the above
B. Any 3 of the above
C. Any 2 of the above
D. Any 1 of the above
E. None of the above

Response: Any Two of the above

1. ***Green audit / Environment audit***

External Green and Environment Audit Team visit.

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QXMJ+PM2, Harapanahalli, Karnataka 583131, India
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Long 75.981588°
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GPS Map Camera
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Veerashaiva Vidyavardhaka Sangha, Ballari

A.D.B FIRST GRADE COLLEGE. HARAPANAHALLI

Affiliated to V.S.K. University, Ballari

(NAAC Accredited with 'B' Grade in 3rd Cycle)

Website: www.adbcollege.org; Email: adbprince@gmail.com

GREEN AND ENVIRONMENT AUDIT 2021-22

NEED FOR GREEN AND ENVIRONMENT AUDIT

The rapid urbanization and economic development at local, regional and global level has led to several environmental and ecological crises. On this front it becomes essential to adopt the system of the Green Campus for the institutes which will lead for sustainable development and at the same time reduce a sizable amount of atmospheric carbon-di-oxide from the environment.

BENEFITS OF GREEN AND ENVIRONMENT AUDIT

If green audit is enforced in an effective way then there are many advantages that could be adopted from it.

- It would help to shield the environment.
- Recognise the cost saving methods through waste minimising and managing.
- Empower the organisations to frame a better environmental performance.
- Enhance the alertness for environmental guidelines and duties.

In view of this our institution has constituted an internal committee and also invited an external team for auditing the campus environment. Target areas included in this green auditing are water, soil, energy, waste and green campus. The observations made by the team are as follows.

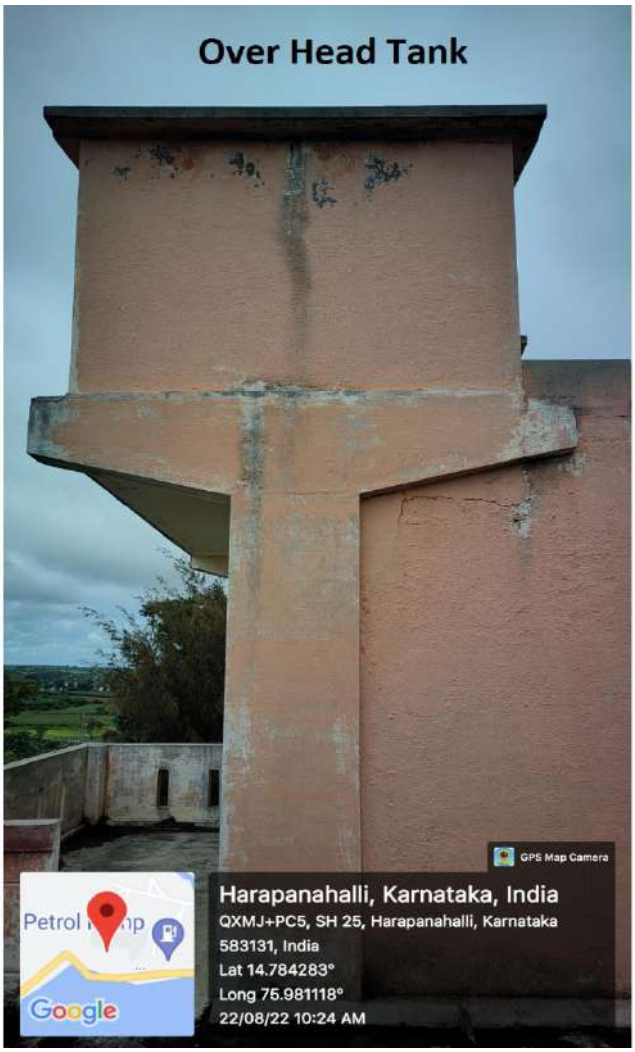
College Location on Google Map

AUDITING FOR WATER MANAGEMENT

Water sources of the college are bore well and the water supplied by municipality. Municipality water is stored in a sump. The analysis of this water will be carried out to confirm that water is suitable for drinking and general usage. For daily consumption, water is stored in the overhead tanks. An RO plant is installed for drinking water.

WATER STORAGE CAPACITY

Sl No	Particulars	Capacity
1	Bore Well	250 feet depth
2	Sump	10000 liters
3	Overhead Tank	10000 liters
4	Rain water for distilled water tanks	500*2=1000 liters
5	R O Filter Tank	500 liters
6	Water usage per day	10000 liters



WATER ANALYSIS

Sl No	Parameters	Bore well Water	R O water	Municipality Water
1	TDS	480 ppm	155 ppm	102 ppm
2	pH	13.8	7.2	7.1
3	Conductivity	0.531	0.73	0.196
4	Residual Sodium Carbonate	1.25	1.2	1.25
5	Sodium Absorption Ratio	10	13	13

SOIL ANALYSIS

Sl No	Particulars	Test values	Rating
1	pH	6.80	Slightly acidic
2	EC	0.20 dS/m	Normal
3	Organic Carbon	0.98%	High
4	Available Nitrogen	565.00 kg/ha	High
5	Available Phosphorus	54.23 kg/ha	Medium
6	Available Potassium	245.00 kg/ha	Medium
7	Available Sulphur	10.40 ppm	Sufficient
8	Available Zinc	0.56 ppm	Deficient
9	Available Boron	0.57 ppm	Sufficient
10	Available Iron	4.70 ppm	Sufficient
11	Available Manganese	2.10 ppm	Sufficient
12	Available Copper	0.21 ppm	Sufficient

Waste water management:

- Rain water from the roof top is collected in the sump and this water is utilised for laboratories and watering the plants.
- The waste water from R O plant is used for plants and excess water is drained out.
- Waste water from washrooms and laboratories are directed to the soak pit through proper drainage system.
- Water recycling system is not yet adopted in the college.

AUDITING FOR WASTE MANAGEMENT

To manage solid waste, separate dustbins for degradable and non-degradable waste are installed at different places in the campus. Non degradable waste is collected by the municipality vehicle. The degradable waste along with other plant waste will be disposed in the compost pit. The manure obtained from the compost pit is used as fertiliser.

E-waste will be sold to scrap buyers with the permission of Principal and college governing body. The campus is a plastic free zone due to the constant awareness created by the faculty among the students regarding the harmful effects of dumping plastic in the environment. Chemical wastes from the laboratories are neutralised with water.

AUDIT FOR CARBON FOOT PRINT

As most of the students are from rural areas, they use public transport on a daily basis. Less than 10% of the students use two wheelers and very rarely do faculty members use four wheelers.

Considering the above parameters the campus can be declared as a near carbon free zone.

GREEN CAMPUS

The College campus is enriched with a variety of plants. The premises are enriched by greenery of various plant species. The plants are seen in the corridor, along the building walls, border area of the playground and in the botanical garden. Several types of plant species are available in the campus including both wild and cultivated. Each species is represented by varied number of individuals. Common wild plants, Fruit trees, Ornamental plants, Medicinal plants are cultivated in the botanical garden for field study and also for practical purpose. Following are the identified list of plant species available in the college campus.

Sl. No.	Botanical name	Common name	Family
1	*Acalypha indica*	Indian nettle	Euphorbiaceae
2	*Aloe vera*	Aloe	Asphodelaceae
3	*Catharanthus roseus*	Periwinkle	Apocynaceae
4	*Mirabilis jalapa*	4'O clock plant	Nyctaginaceae
5	*Parthenium histerophorous*	Congress grass	Asteraceae
6	*Cassia occidentalis*	Cassia	Caesalpiniaceae
7	*Bryophyllum pinnatum*	Gandu kalinga	Crassulaceae
8	*Asparagus racemoses*	Mother herb	Asparagaceae
9	*Cassia auriculata*	Honnarike	Caesalpiniaceae
10	*Cynodon dactylon*	Garike	Poaceae
11	*Withania Somnifera*	Ashwagandha	Solanaceae
12	*Rauvolfia tetrafolia*	Rauvolfia	Apocynaceae
13	*Corchorus species*	Corchorus	Malvaceae
14	*Boerhavia diffusa*	Sanadika,	Nyctaginaceae

15	*Tinospora cordifolia*	Amruta balli	Menispermaceae
16	*Achyranthes aspera*	Uttarani	Amaranthaceae
17	*Tridax procumbens*	Tridax	Asteraceae
18.	*Oxalis corniculata*	Oxalis	Oxalidaceae
19	*Euphorbia hirta*	Euphorbia	Euphorbiaceae
20	*Argemone mexicana*	Argemone	Papavaraceae
21	*Solanum surattense*	Gulalkayi	Solanaceae
22	*Poa species*	Common Grass	Poaceae
23	*Ocimum sanctum*	Sacred basil	Lamiacae
24	*Zingiber officnarum*	Ginger	Zingiberaceae
25	*Allium cepa*	Onon	Liliaceae
26	*Nerium indicum*	Oleander	Apocynaceae
27	*Hibiscus rosa sinensis*	China rose	Malvaceae
28	*Croton species*	Croton	Euphorbiaceae
29	*Haemilia patens*	Fire bush	Rubiaceae
30	*Calotropis procera*	Bili ekka	Asclepiadaceae
31	*Clerodendrum inerme*	Vishamadhari	Verbenaceae
32	*Lantana camera*	Lantana	Verbenaceae
33	*Duranta repens*	Hedge plant	Verbenaceae
34	*Morus alba*	Mulbery	Moraceae
35	*Ficus carica*	Anjura	Moraceae
36	*Acalypha wilkesiana*	Copper plant	Euphorbiaceae
37	*Echinops echinatus*	Brahma dande	Asteraceae
38	*Ipomea palmata*	Morning Glory	Convolvulaceae
39	*Clitorea ternatia*	Shanku pushpa	Fabaceae
40	*Spathodea campanulata*	Nandi flame	Bignoniaceae
41	*Mimusops elengi*	Bullet wood	Sapotaceae
42	*Polyalthia longifolia*	False ashoka	Annonaceae
43	*Albizia lebbec*	Womens tongue tree	Mimosaceae
44	*Millingtonia hortensis*	Tree jasmine	Bignoniaceae
45	*Tecoma stans*	Yellow bells	Bignoniaceae
46	*Azadirachta indica*	Neem	Meliaceae

47	*Tectona grandis*	Teak	Lamiaceae
48	*Santalm album*	Sandal wood	Santalaceae
49	*Aegle marmelos*	Bhel, Golden apple	Rutaceae
50	*Bahuinia purpurea*	Butterfly tree	Fabaceae
51	*Terminalia catappa*	Indian almond	Combretaceae
52	*Psidium guajava*	Guava	Myrtaceae
53	*Phyllanthus acidus*	Goose berry	Phyllanthaceae
54	*Bambusa vulgaris*	Bamboo	Poaceae
55	*Moringa olefera*	Drum stick tree	Moringaceae
56	*Cycas circinalis*	Palm tree	Cycadaceae
57	*Carica papaya*	Papaya	Caricaceae
58	*Mangifera indica*	Mango	Anacardiaceae
59	*Cocos nucifera*	Coconut	Arecaceae
60	*Ficus racemosa*	Hatti mara	Moraceae
61	*Sesbania species*	Sesban	Fabaceae
62	*Acacia nilotica*	karijali	Mimosaceae
63	*Emblica officnalis*	Bettada nelli	Euphorbiaceae
64	*Acacia melanoxylon*	Australian acacia	Mimosaceae
65	*Prosopis Juliflora*	Jali gida	Mimosaceae
66	*Terminalia arjuna*	Arjun tree	Combretaceae
67	*Roystonea regia*	Royal palm	Arecaceae

Acknowledgement

This is to acknowledge that with the support of teaching and non-teaching faculty the team has conducted the audit smoothly and successfully.

COLLEGE LEVEL COMMITTEE FOR GREEN AND ENVIRONMENT AUDIT

Sl No	Name of the Staff	Department	Signature
1	Prof.G.Umesh, Associate Professor.	Chemistry	
2	Prof.G.B.Naganagouda, Associate Professor.	English	
3	Dr. D. Tippeswamy, Associate Professor	Kannada	
4	Prof.N.Veerabhadrappa, Associate Professor.	Electronics	
5	Prof.Anand.S, Asst Professor.	Chemistry	
6	Dr.A.M.Rajashekharaiah, Asst Professor	Kannada	

EXTERNAL AUDIT TEAM

Sl No	Name and Designation	Signature
1	Sri Jayasimha. R Senior Assistant Director of Horticulture, Zillapanchayath, Harapanahalli-583131	
2	Range Forest Officer, Harapanahalli Territorial Range, Harapanahalli-583131	Range Forest Officer, Harapanahalli Range. Harapanahalli.

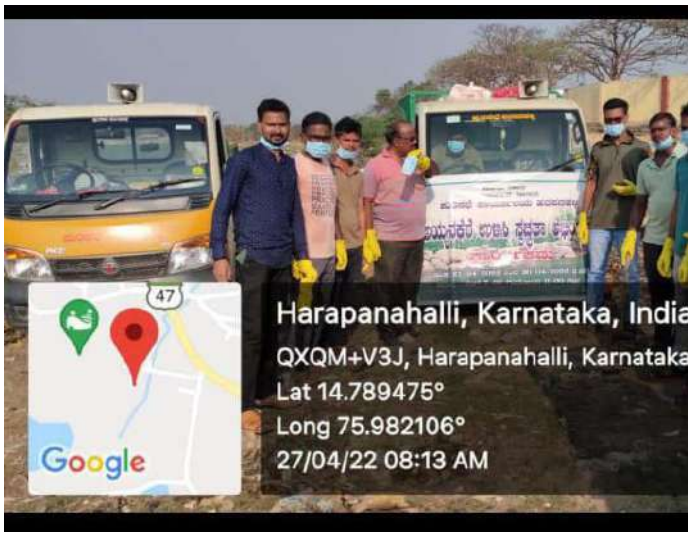
2. Beyond the campus environmental promotion and sustainability activities.

Our institution takes part in campaigns to promote sustainability and the environment. A few of these initiatives are carried out through NSS initiatives and through special camps in adopted villages.

SWATCH BHARAT PROGRAM

On October 2, 2019, Lalbahadur Shastri and Mahatma Gandhi's birthdays, NSS volunteers from our institution participated in the Swatch Bharat Abhiyaan. The KSRTC bus terminal was cleaned as part of this campaign to increase community awareness. Everyone thereafter takes part in the Harapanahall plastic-free campaign.

AYYANA LAKE SWACHATA ABHIYAAN

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67 ಎಕರೆ ವಿಸ್ತಾರ
ಹೊಂದಿದ ಅಯ್ಯನಕೆರೆ

Harapanahalli municipality started its campaign to clean the Ayyana lake on 27-04-2022 morning. ADB College employees and 4 students have offered a helping hand to the municipality's “Save the Lake” campaign. The workers, officials and volunteers, all with gloves and shoes began the cleaning at 6 AM in the morning. They collected pollutants and plastic waste from the lake bed, loaded it in tractors and autos and disposed of it in the town garbage disposal area. The cleaning went on for three days.

Principal
A.D.B. First Grade College
Harapanahalli-583 131.