

# GREEN AUDIT

## GREEN AUDIT Of UMIYA Campus

Umiya Arts and Commerce College for Girls,  
Sarkhej - Gandhinagar Highway,  
Sola Village, Ahmedabad,  
Gujarat 380060, India



By:

### T.R. ASSOCIATES

A-401, S. G. Business Hub,  
B/w. Sola Bhagwat & Gota Over Bridge,  
Near Umiya Campus,  
S. G. Highway, Ahmedabad- 380060  
MO.: 98253 71099  
<http://trassociates.in>



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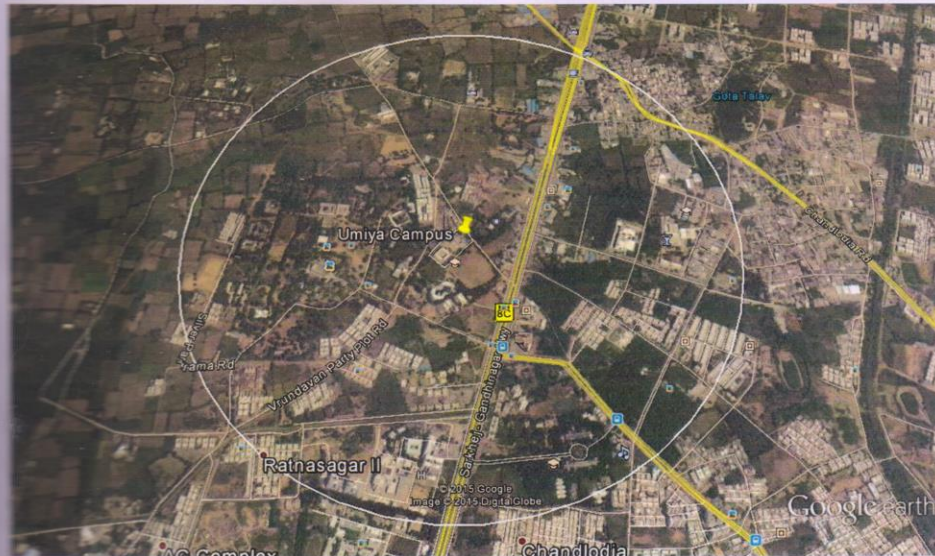
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## 1 Environment Consciousness

### 1.1. Does the Institute conduct a Green Audit of its campus and facilities?

The campus is pollution free, is on the periphery of the city & away from the hustle and bustle of the city.



The image shows 1 km radius surrounding college.

College has maintained the natural greenery of the college campus and has augmented it over the years on a continuous effort basis by regular upkeep and plantations.

Being a humanities related college there are neither chemicals used nor use of any kind of equipments or machinery either consuming high power or generating pollutants. Hence, our primary effort on this aspect is to create a high degree of awareness among the students, which we do consciously.

Since a large number of students stay from the hostel, which is in campus, the overall usage of vehicles is minimal. The Campus has well maintained roads which reduces the fugitive dust in atmosphere due to vehicles.

On the curriculum front, college teaches one foundation paper on Environmental Studies to all students of semester 2 (Arts & Commerce). All students have been trained to tackle environmental issues.



Awareness of environmental issues is spread in surrounding areas and villages by NSS teams whenever NSS camps are held.

## 1.2 What are the initiatives taken by the college to make the campus eco-friendly?

### A. Energy conservation

College has been very conscious about conservation of Energy. We have a spacious building having broad passages and spaces that creates an ambience of openness. Since it is a new building, to maximize the element of natural lighting was one of the target areas.

Architecture of the building is such that minimum tube lights are required to be used. Students and faculties switch off tube lights and fans when not required or after classes. Air conditioners are used only when temperature is not comfortable. College is using only LED lights for their lighting purpose.

### B. Use of renewable energy

To promote use of renewable energy we have set a bio-gas plant. Food waste and cooking waste from hostel is used as a feed in bio-gas plant.

### C. Efforts for Carbon neutrality

Burning of waste and burning of papers is strictly prohibited in our campus. A large number of students stay in the hostel which is in campus itself so travel to college is not required for them.

The socio-economic profile of our students is such that most students commutes by public transport, because, of economic reasons and also because excellent connectivity for our location.

This overall reduces the carbon foot print.

### D. Plantation

College has a total of 1994 trees and plants in our campus; we have classified them & a study of their botanical names was done by our students. We have displayed their names & numbers at the entry of our college. Names and number of trees are also attached in Annexure 2.



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### E. Hazardous waste management

College canteen does not keep packed dry food. However, the use of plastics in college has been minimized by sensitizing all the students & non-technical staff about hazards of plastic.

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College has provided dustbins at regular intervals & we ensure that the collected waste is disposed regularly by the municipal authority.

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### F. E-waste management

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- College practice buys back offers.
- Old computers are given for the use of children of Administrative Staff members.
- Old equipments like amplifiers and music systems are serviced and given to old age home.
- Old cameras given to municipality schools.
- College advocate to the staff and students to exchange their old mobiles while purchasing new ones.
- CD's or DVD's are hardly used, as pen drives are provided to store data.

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### G. Miscellaneous

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- College has developed a small area as kitchen Garden.
- College has put a Chabutara in our campus.
- College has also put 15 'Nest boxes' for sparrows in campus.
- There are farm houses in near surrounding area which has a lot of green and tree covered region which is also helpful in reducing pollution in the region.
- College has also Conducted Ambient Air monitoring in the campus. **Results show that the campus is pollution free with PM<sub>10</sub> and PM<sub>2.5</sub>** well under prescribed limits. Results are attached in Annexure 3.
- There are more than **45 known species of Birds** found in campus.

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### 1.3 Conclusion

- The surrounding area is pollution free and away from industries.



- The rooms are spacious with large windows and the architecture allowing lot of natural ventilation and lighting in the rooms.
  - The campus has around 20% green cover with 1994 no. of trees and plants.
  - There are 48 known species of trees and plants and more than 45 known species of birds found in the campus which shows a lot of biodiversity among flora and fauna in this region compared to city which shows the acceptance of these species to this region.
  - The Campus has well maintained roads which reduces the fugitive dust in atmosphere due to vehicles.
  - Adequate E-waste management is provided in the campus.
  - The campus recharges groundwater from rainwater harvesting.
  - The use of electricity is kept to minimum.
- With so many species and biodiversity, more than enough green cover, use of Green energy with biogas, use of less electricity, Rain water Harvesting, and less pollution, we can conclude that The Umiya Campus is a Green and Pollution Free campus.



Annexure 1 (Surrounding region around campus)

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Annexure 1 (Surrounding region around campus.)



White circle: 1 km Radius;

Blue Circle: 5 km Radius;

Green Circle: 10 km Radius



**Annexure 2 List of trees in campus**

[વૃક્ષોનો લાઇવ સ્ટોક]

વૃક્ષોનું નામ		વૃક્ષોનું નામ	
લીમડો (azadiraztha indica)	૧૦૦(100)	કેળ (Musa acuranata)	૨૦(20)
ગૂંદો (cordia biossier)	૫(5)	ખજૂરી (Phoenix sylvestris)	૫(5)
પીપળો (ficus religiosa)	૨(2)	સીસમ	૮(8)
પરદા વેલ	૧૦(10)	મીઠો લીમડો (Bergera Koenigi)	૫(5)
તુલસી (ocimum sanctum)	૧૦૦(100)	અશ્વગંધા	૩૦(30)
અરઢૂસી (Adhatoda vasica)	૪(4)	નાળીયેરી (cocos nucifera)	૩(3)
અજમો	૧૦(10)	કુવારપાકુ (Aloevera)	૧૦(10)
મની પ્લાન્ટ	૨૦(20)	અર્જુન	૨(2)
સોનું કારપેટસ	૮(8)	ફૂદીનો	૧૦(10)
કદમ	૧(1)	બીકોડોરીયા	૮(8)
બોગનવેલ (Bougainvillea glabra)	૪૦(40)	મહેદી (Lausania alba)	૧૦(10)
અંજીર	૨(2)	ચાંદની	૧૦(10)
ચમ્પો (Artabottys odoratissimus)	૨(2)	રેડ એકઝોરા (Ixora coccinea)	૭(7)
સપ્તપર્ણી (Alstonia scholaris)	૪૦(40)	નગોડ (Vitex nirgundi trifolia)	૧(1)
જૂંઠ (Jasmin ariculatum)	૧૦(10)	ડમરો	૨૦(20)
રાતરાણી (cestrum nocturnum)	૬(6)	પ્લાસ	૨(2)
કણ્ઝી (cedrus libani)	૧૦(10)	સુદર્શન	૧૦(10)
આસોપાલવ (Polisathina Imgifolia)	૭૦(70)	મધુમાલતી (Quisaualis indica)	૬(6)
કરેણ (Nerium Indicum)	૧૦(10)	પિન્ક ચાઇનિસ એકઝોરા	૩૦(30)
બારમાસી (Catharanthus roseus)	૨૦(20)	જાસૂદ (Hidiscus rosasinensis)	૭૦(70)
લીંબુડી (Citrus Acida)	૫(5)	જાંબુડી (Eugrina Jambolana)	૫(5)
સેવન (Gmelina Ardorea)	૮(8)	મોગરો (Jasnunam sambac)	૧૦(10)
સમી	૧(1)	કાચનાર	૨(2)
મિંટ	૧૦(10)	બસણી બેલ	૩(2)

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બીલીપત્ર (Aegle marmelos)	૨(૨)	ડોંકી બેલ	૧૪(૧૪)
સાઇક્સ	૨(૨)	સીતૂરા	૧(૧)
ચાઇનિસ ચંપા	૧૦(૧૦)	ટેબલ પામ	૨(૨)
શો પીસ	૨૦(૨૦)	ભાજી મહેદી	૨૫૦(૨૫૦)
લિલી	૧૦૮(૧૦૮)	એલ્ફોફા ફૂલ	૧૦(૧૦)
બોટલ પામ	૧૦(૧૦)	પામ પોનીસ	૨(૨)
ગરમાડો	૬(૬)	બ્લેક ફેક્સ ફંટા	૮(૮)
કેના	૬૦(૬૦)	કેવડો	૫(૫)
સનાવહી	૧૦(૧૦)	ગોલ્ડન ફેક્સ ફંટા	૫(૫)
લાલ મહેદી	૨૦૦(૨૦૦)	હરસિંગ હરબેલ	૧(૧)
બોરસલી	૬(૬)	કરેણ	૬(૬)
રખર બેલ	૨(૨)	બોડલિયા બેલ	૨૦(૨૦)
પિલ્ક એકઝોરા (Ixora coccinea)	૪(૪)	કપાસ	૬(૬)
ડસરીના	૬(૬)	કેકટસ	૬(૬)
કલુષી	૨(૨)	શો પીસ	૪(૪)
લોકુવાં	૧૦(૧૦)	ડરવતન	૪(૪)
નાગદેવ	૨૦(૨૦)	સફેદ આંકડો	૧(૧)
મુકુ	૧૦(૧૦)	કિસમસ ટ્રી	૧(૧)
શ્યામ પીપડી	૨(૨)	બોડલિયા ફૂલ	૨૦(૨૦)
મુઠી બેલ	૧(૧)	નાગચંપા	૭(૭)
કેલોરિટેવ પ્લાંટસ	૨૨(૨૨)	એલોમેડાં બેલ	૩(૩)
ચીન ટી	૫(૫)	પાસિજાત	૫(૫)
ખરખર પ્લાંટ	૨૫(૨૫)	એપરિંડા પામ	૫(૫)
ગોલ્ડન મહેદી	૨૦૦(૨૦૦)	સઈટ ઓફ ઈન્ડિયા	૩૫(૩૫)
પાલ્લવ પ્લાંટ	૫૦(૫૦)	કુલ (TOTAL)	૧૯૯૪(૧૯૯૪)



**Annexure 4 Site Visit Photographs**



**Ayurveda & Medicinal plants**

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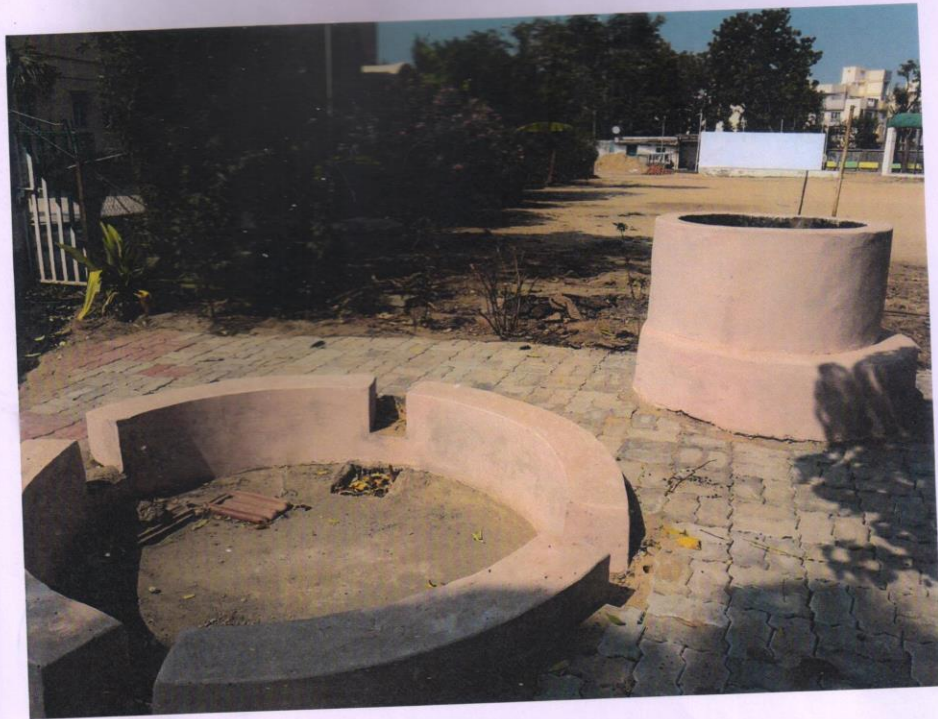
### अमरको वृक्ष यैभव

अमरको (AZADIRACHTA INDICA) 74	अमरको (ACACIA ARABICA) 3
अमरको (FICUS RELIGIOSA) 1	अमरको (MUSCAECUM SANTIUM) 10
अमरको (VITE EXCELSA) 1	अमरको (ADHATODA VASICA) 4
अमरको (CASSIPOUIRA ELODIIFOLIA) 13	अमरको (CHEBLI) 1
अमरको (BOUGAINVILLEA GLABRA) 1	अमरको (BANYAN) 4
अमरको (ARTABOTTIS ODORATISSIMUS) 2	अमरको (JUSTONIA SCHOLARIS) 23
अमरको (LASSIA ARICULATA) 2	अमरको (CEDRUM NOCTURNUM) 1
अमरको (CERURUS LIBANI) 2	अमरको (POLYANTHUS LONGIFOLIA) 20
अमरको (NERARIUM INDICUM) 20	अमरको (CATHARANTHUS ROSEUS) 26
अमरको (OTRISIA ACIDA) 4	अमरको (GHELMA ARDOIDES) 1
अमरको (SALVADORA OLEOIDES) 1	अमरको (BAMBUSIA ARUNDINACEAE) 3

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अमरको (PONGAMIA PERRIERI) 5	अमरको (COCOS NUCIFERA) 1
अमरको (DELONIX REGIA) 1	अमरको (GALIA ROSEA) 9
अमरको (LASSIANAM SAMBAC) 10	अमरको (MUSCIS ROSASINENSIS) 4
अमरको (EUGENIA JAMBOLOANA) 4	अमरको (PHOEBEA SYLVES) 15
अमरको (BERGERA KOENIGII) 4	अमरको (COCOS NUCIFERA) 1
अमरको (ACACIA ARABICA) 3	अमरको (ACACIA ARABICA) 3
अमरको (TERMINALLIA CATAPALPA) 1	अमरको (LAUSONIA ALBA) 193
अमरको (FICUS INDICA) 1	अमरको (LAVINA COCCINEA) 3
अमरको (PHYLLANTHUS EMBLICA) 2	अमरको (COCOS NUCIFERA) 2
अमरको (PSIDIUM GUALIANA) 2	अमरको (DALBERGIA Sissoo) 1

ENGINEER  
M 1082 12/6



**Biogas Plant**





• **Ambient Air Sampling**

*T.R.P.*  
CHARTERED ENGINEER  
T. R. PATEL  
M 108219/6