GREEN AUDIT REPORT

2015 - 2016

by

Department of Botany

Kongunadu Arts and Science College (Autonomous)

[Re-accredited by NAAC with 'A' Grade 3.64 CGPA out of 4 (3rd cycle)

College of Excellence (UGC)

Coimbatore – 641 029, Tamil Nadu

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Kongunadu Arts and Science College (KASC) is one of the oldest colleges in Coimbatore, the western part of Tamil Nadu where agriculture and industrial developments are very progressive in Tamil Nadu. In addition to best education to the rural students, the college provides best research opportunities and provision for extension activities for the interest of the common public. More than 50% of the students is mainly female gender almost in all subjects. The college is situated at the foot hills of Western Ghats at the altitude of 400 meters MSL. It indicates that it is very access to the vegetation and other landscapes of Western Ghats particularly the Nilgiris. College administration is having keen interest in maintaining green campus, an ecofriendly approach towards getting sustainable ecosystem service. “Green auditing” is practiced in the every year in order to improve environmental protection. The Department of Botany of KASC has been doing green auditing process since 2014 – 2015. It includes auditing of the flora and fauna, rain water harvesting units, plastic free zone, and green cover.

Flora

The list of trees, shrubs, climbers and herbs available in the year 2015 - 2016 is given below.

S. No.	Scientific Name	Family
1.	*Acacia nilotica*	Mimosaceae
2.	*Acalypha indica*	Euphorbiaceae
3.	*Acanthospermum hispidum*	Asteraceae
4.	*Aegle marmelos*	Rutaceae

5.	*Achyranthes aspera*	Amaranthaceae
6.	*Aerva lanata*	Amaranthaceae
7.	*Albizia amara*	Mimosaceae
8.	*Alternanthera pungens*	Amaranthaceae
9.	*Alternanthera sessilis*	Amaranthaceae
10.	*Alysicarpus monilifer*	Fabaceae
11.	*Alysicarpus rugosus*	Fabaceae
12.	*Amaranthus spinosus*	Amaranthaceae
13.	*Azadirachta indica*	Meliaceae
14.	*Bauhinia malabarica*	Caesalpinaceae
15.	*Blumea obliqua*	Asteraceae
16.	*Boerhaavia diffusa*	Nyctaginaceae
17.	*Bougainvillea glabra*	Nyctaginaceae
18.	*Callistemon lanceolatus*	Mytraceae
19.	*Calotropis gigantea*	Asclepidaceae
20.	*Cardiospermum halicacabum*	Sapindaceae
21.	*Cassia fistula*	Caesalpinaceae
22.	*Cassia siamea*	Caesalpinaceae
23.	*Chloris barbata*	Poaceae
24.	*Cleome pentaphylla*	Capparidaceae
25.	*Clitoria juncea*	Fabaceae
26.	*Clitoria ternatea*	Fabaceae
27.	*Coccinia indica*	Cucurbitaceae
28.	*Commelina benghalensis*	Commelinaceae
29.	*Corchorus tridens*	Tiliaceae

30.	*Croton bonplandianum*	Euphorbiaceae
31.	*Cuscuta chinensis*	Convolvulaceae
32.	*Cynodon dactylon*	Poaceae
33.	*Cyperus rotundus*	Cyperaceae
34.	*Dactyloctenium rotundus*	Poaceae
35.	*Datura metel*	Solanaceae
36.	*Delonix regia*	Caesalpinaceae
37.	*Digera arvensis*	Amaranthaceae
38.	*Digitaria longiflora*	Poaceae
39.	*Eragrostis riparia*	Poaceae
40.	*Eucalyptus tereticornis*	Mytraceae
41.	*Eupatorium odoratum*	Asteraceae
42.	*Euphorbia heterophylla*	Euphorbiaceae
43.	*Euphorbia microphylla*	Euphorbiaceae
44.	*Euphorbia hirta*	Euphorbiaceae
45.	*Evolvulus alsinoides*	Convolvulaceae
46.	*Gisekia pharnaceoides*	Aizoaceae
47.	*Gloriosa superba*	Liliaceae
48.	*Gomphrena decumbens*	Amaranthaceae
49.	*Hibiscus micranthus*	Malvaceae
50.	*Ichnocarpus frutescens*	Apocynaceae
51.	*Indigofera enneaphylla*	Fabaceae
52.	*Indigofera viscosa*	Fabaceae
53.	*Ipomoea obscura*	Convolvulaceae
54.	*Justicia tranquebariensis*	Acanthaceae

55.	*Kyllinga triceps*	Cyperaceae
56.	*Lantana camara*	Convolvulaceae
57.	*Malvastrum coromandelianum*	Malvaceae
58.	*Millingtonia hortensis*	Bignoniaceae
59.	*Mimosa pudica*	Mimosaceae
60.	*Mimusops elengi*	Sapotaceae
61.	*Mollugo nudicaulis*	Aizoaceae
62.	*Morinda tinctoria*	Rubiaceae
63.	*Mukia maderaspatana*	Cucurbitaceae
64.	*Oldenlandia umbellata*	Rubiaceae
65.	*Parthenium hysterophorus*	Asteraceae
66.	*Passiflora foetida*	Passifloraceae
67.	*Pavonia zeylanica*	Malvaceae
68.	*Peltophorum ferrugineum*	Caesalpinaceae
69.	*Pergularia daemia*	Asclepidaceae
70.	*Peristrophe bicalyculata*	Acanthaceae
71.	*Perotis indica*	Poaceae
72.	*Phyllanthus amarus*	Euphorbiaceae
73.	*Phyllanthus maderaspatensis*	Euphorbiaceae
74.	*Physalis minima*	Solanaceae
75.	*Polygala bulbothrix*	Polygalaceae
76.	*Pongamia pinnata*	Fabaceae
77.	*Prosopis spicigera*	Mimosaceae
78.	*Prosopis glandulosa*	Mimosaceae
79.	*Quisqualis indica*	Mimosaceae

80.	*Rhynchosia minima*	Fabaceae
81.	*Samanea saman*	Mimosaceae
82.	*Setaria intermedia*	Poaceae
83.	*Sida acuta*	Malvaceae
84.	*Spermacoce hispida*	Rubiaceae
85.	*Sporobolus coromundelianus*	Poaceae
86.	*Spathodea campanulata*	Bignoniaceae
87.	*Tabernaemontana divaricata*	Apocynaceae
88.	*Tecoma stans*	Bignoniaceae
89.	*Tephrosia procumbens*	Fabaceae
90.	*Tephrosia purpurea*	Fabaceae
91.	*Tinospora cordifolia*	Menispermaceae
92.	*Trianthema portulacastrum*	Aizoaceae
93.	*Tribulus terrestris*	Zygophyllaceae
94.	*Trichodesma indicum*	Boraginaceae
95.	*Tridax procumbens*	Asteraceae
96.	*Vernonia cinerea*	Asteraceae
97.	*Vicoa indica*	Asteraceae
98.	*Waltheria indica*	Sterculiaceae

Fauna

Since the campus is having a high degree of green cover mainly due to trees, many number of avian fauna inhabit the institution. In addition, reptiles and rodents are also common in the campus. Grains and water are also provided to the birds and other wild species by the students of biodiversity conservation interest. Some of the common fauna available in the college campus is given below.

S. No.	Scientific Name	Common Name
1.	*Clamator jacobinus*	Pied Crested Cuckoo
2.	*Merops orientalis*	Small green Bee-eater
3.	*Merops philippinus*	Blue tailed Bee-eater
4.	*Tephrodornis* sp.	Common Wood-Shrike
5.	*Acridotheres tristis*	Common myna
6.	*Dicrurus macrocercus*	Black drongo
7.	*Corvus splendens*	House crow
8.	*Corvus macrorhynchus*	Jungle crow
9.	*Rana luteiventris*	Frog
10.	*Tyto alba*	Barn owl
11.	*Athene brama*	Spotted owl
12.	*Orthotomus sutorius*	Common Tailor bird
13.	*Pteropus giganteus*	Flying fox
14.	*Funambulus palmarum*	Indian Palm Squirrel
15.	*Spilopelia senegalensis*	Little-Brown Dove
16.	*Accipiter badius*	Shikra
17.	*Columba livia*	Blue-rock Pigeon

18.	*Canis lupus familiaris*	Dog
19.	*Felis catus*	Cat
20.	*Aphis pomi* DeGreer	Aphids
21.	*Solenopsis* sp.	Ants
22.	*Acanthepeira stellata*	Spider
23.	*Argiope florida*	Florida garden spider
24.	*Calotes versicolor*	Garden lizard
25.	*Rattus norvegicus*	Brown rat
26.	*Passer domesticus*	House sparrow
27.	*Coptotermes formosanus*	Termite
28.	*Apis dorsata*	Indian bee
29.	*Apis florea*	Small bee
30.	*Papilio machaon*	Butterfly
31.	*Ampullariidae* sp.	Apple snail
32.	*Junonia lemonias*	Lemon pansy
33.	*Danaus chrysippus*	Plain tiger
34.	*Danaus genita*	Striped tiger
35.	*Acraea terpsicore*	Tawny coaster
36.	*Tirumala limniace*	Blue tiger
37.	*Neptis hylas*	Common sailer
38.	*Papilio paris*	Paris peacock
39.	*Graphium doson eleius*	Common blue bottle
40.	*Melanitis leda*	Common evening brown
41.	*Papilio romulus*	Common mormon
42.	*Catopsilia pomona*	Common emigrant
43.	*Aedes, Culex, Anopheles*	Mosquito
44.	*Sympetrum flaveolum*	Dragonfly

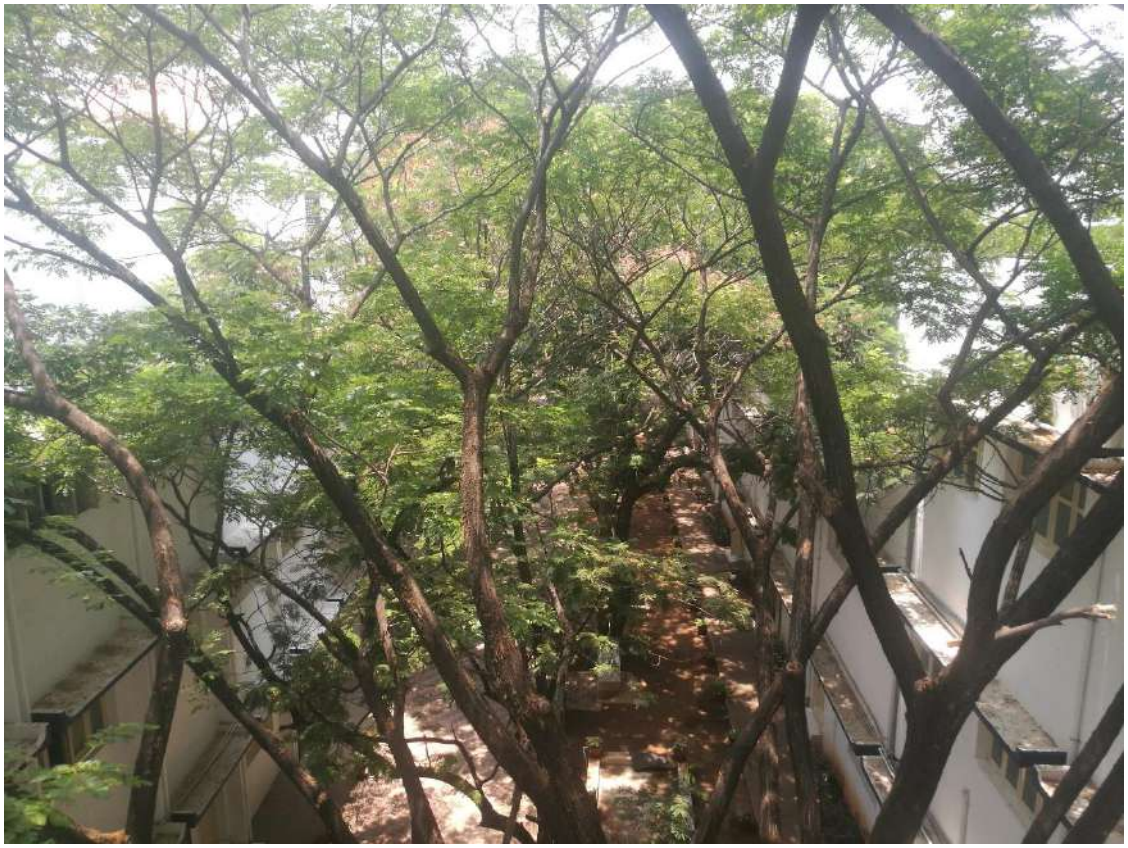
45.	*Phylliidae*	Leaf insect
46.	*Phasmatodea* sp.	Stick insect
47.	*Charidotella* sp.	Golden Beetle
48.	*Lepisma saccharina*	Silverfish
49.	*Pavo cristatus*	Peacock
50.	*Periplaneta americana*	Cockroach
51.	*Lumbricus terrestris*	Earthworm
52.	*Diplopoda*	Millipedes
53.	*Chilopoda*	Centipedes

Green cover

It is assessed that tentatively 40% of the geographical area of the campus was occupied by green cover of the tree species. It is well beyond the standard prescribed by the Indian forest policy, 33%.

Rain water harvesting

All over the campus at eight different places, rain water harvesting units each with the size of 12’ x 8’ x 10’ for roof top water harvesting. As per the information of college administration, it is known that for the students and staffs members and for laboratory usage, the bore well situated in the college provided complete supply of water. No amount of water was purchased for this purpose. However, before the construction of rain water harvest unit to meet the demand, an average of 20,000 liters of water was purchased every day. Apart from the rain water harvest unit, the surface water during rainy days was permitted to percolate in the soil to augment ground water at maximum extend. This is mainly due to non-sealing of the earth surface by the tiles, cement concretes, etc. wherever it is possible. The average annual rain water harvesting during the year 2015-2016 was 25,26,900 L.



The green cover in the college campus

The rain water harvesting unit

Water purifying system

A total of 23 water doctors have been installed in the campus for supplying pure drinking water both at cold and hot conditions to students and other categories of peoples.

Plastic free zone

In order to reduce the usage of non-biodegradable materials, the eco-club volunteers were frequently involved to remove the plastic items in the college campus. Students and other peoples were advised to use non-plastic materials only. Segregation of the waste materials was made separately for non-biodegradable and biodegradable materials.

Awareness programme

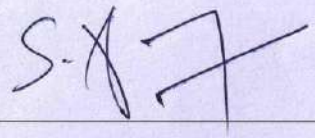
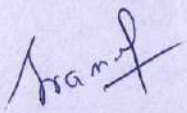
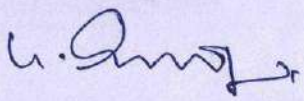
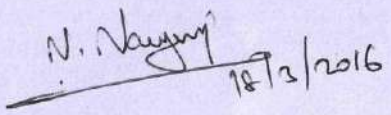
A seminar was conducted on scientific Approaches in Judicious management of Natural Resources during National Science Day Celebration (26.02.2016). All volunteers of our college participated and interacted with experts on Herbs, Solar energy and Rainwater Harvesting, etc.

Expenditure made on green campus: Rs. 2,95,281/-

Suggestions and Recommendations

1. Improvement in existing medicinal garden by planting and maintaining still more number of plant species.
2. Maintenance of rain water harvesting unit by adopting suitable methods.
3. LED bulbs can be installed at maximum extent in the college campus.
4. Solar panels can be installed for green energy.

Signature of the committee members

S. No.	Committee members	Signature
1.	Dr. S. Paulsamy	
2.	Dr. V. Balasubramaniam	
3.	Dr. K. Arumugasamy	
4.	Dr. N. Nagarajan	
5.	Dr. T. Parimelazhagan