

Role of university education in promotion of biodiversity conservation with special reference to university of agricultural sciences, Bangalore

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ABSTRACT

University of Agricultural Sciences, Bangalore established in the year 1964 for promotion of agricultural education and research in the country. The Government of Mysore headed by Sri. S. Nijalingappa, the then Chief Minister, established the University of Agricultural Sciences on the pattern of Land Grant College system of USA and the University of Agricultural Sciences Act No. 22 was passed in Legislative Assembly in 1963. The institution has played a major role in promotion of biodiversity. The campus is established in 1800 acres of land including thick zoological park recognized by department of environment. The importance of biodiversity is duly recognized in all its campuses. The University is proud of its richness and overall biodiversity and it is committed for safeguarding and enhancing it through land management and development practices. Some of the biodiversity conservation activities taken up by the university includes (1) Protection of tree species in the campus. (2) Protection of animal species in the campus through ban of animal hunting in the campus area. (3) Promotion of awareness on environment protection through National Service Scheme (NSS). (4) Ban on plastic materials in the campus (5) practical class on environment protection. (6) Re-creation, restore quality habitats across the University land (7) Provide opportunities for students, staff and the local community to engage with environment such as volunteering opportunities. (8) Ensure campuses are ecologically diverse and inspiring places to visit and helping people to enjoy the natural environment and (9) Partnership with government departments for enhancing the biodiversity.

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1. INTRODUCTION

University of Agricultural Sciences, Bangalore established in the year 1964 for promotion of agricultural education and research in the country. The Government of Mysore headed by Sri. S. Nijalingappa, the then Chief Minister, established the University of Agricultural Sciences on the pattern of Land Grant College system of USA and the University of Agricultural Sciences Act No. 22 was passed in Legislative Assembly in 1963. The institution has played a major role in promotion of biodiversity. The campus is established in 1800 acres of land including thick zoological park recognized by department of environment. Being one of the premier agricultural education institutes in the country the university has taken up various measures for the conservation of the biodiversity in the college campus. The campus is established in 1800 acres of land including thick zoological park recognized by department of environment. The importance of biodiversity is duly recognized in all its campuses. The University is proud of its richness and overall biodiversity and it is committed for safeguarding and enhancing it through land management and development practices. Some of the biodiversity conservation activities taken up by the university include.

Protection of tree species in the campus

The university campus is enriched with various tree species to name few of them indigenous and exotic trees such as *Ficus religiosa*, *Azadirachta indica*, *Cocos nucifera*, *Areca catechu*, *Artocarpus heterophyllus*, *Plumeria alba*, *Guazuma tomentosa*, *Dendrocalamus brandisii*, *Bauhinia purpurea* and *Michelia chapaca*. *Cycas circinalis*, *Embelia ribes*, *Garcinia indica*, *Piper longum*, *Saraca asoca*, *Vateria indica*. The 65 acres of botanical garden developed by University of Agricultural Sciences at Gandhi Krishi Vignana Kendra (GKVK). The area surrounding the garden was a tropical scrubby forest with *Azadirachta indica*, *Ailanthus excelsa*, *Anacardium occidentale*, *Albizia lebbek*, *Artabotrys odoratissima*, *Tamarindus indica*, *Pongamia pinnata*, *Hardwickia binata*, *Cassia siamea*, *Caesalpinia coriaria*, *Terminalia arjuna*, *Eucalyptus citriodora*, *E. hybrida*, *E. malaccensis*, *Bridelia roxburghiana* and *Casuarina equisetifolia* that were planted by the Forest Department of the State Government before the area was handed over to the University. Even now, they are the conspicuous flora and it is intended to thin these out as and when desired plants for the collection are located. In the climatic climax of the area the dominant trees species are *Limonia acidissima*, *Zizyphus mauritiana*, *Z. xylopyrus*, *Albizia amara*, *Cassia fistula*, *Bauhinia racemosa*, *Butea monosperma*, *Wrightia tinctoria*, *Santalum album*, *Streblus asper*, *Holoptelia integrifolia*; the shrub species are *Cadaba fruticosa*, *Capparis spinosa*, *Flacourtia indica*, *Erythroxylon monogynum*, *Cipadessa baccifera*, *Dodonea viscosa*, *Cassia auriculata*, *Randia uliginosa*, *Canthium parviflorum*, *Pavetta indica*, *Jasminun rigidum*, *Gmelina asiatica*, *Lantana camara*, *Breynia retusa*, *B. rhamnoides*; and the woody climbers are *Toddalia asiatica*, *Scutia circumcissa*, *Zizyphus oenoplia*, *Pterolobium hexapetalum*, *Carissa congesta*, *Ichnocarpus frutescens*, *Tylophora cordifolia*, *Gymnema sylvestre*, *Argyreia speciosa*, *Lettonia aggregata* and *Plecosperrum spinosum* (Geetha, 1996).

Major objectives of the garden are introduction, conservation and multiplication of plants of botanical, horticultural, economic and medicinal value. The Department of Botany also maintains a Herbarium with 3,000 species which is situated in the Botanic Garden. Staff and students of this University and other universities visit the Garden to study plants of various families. Exhibitions of herbarium specimens and rare plants are arranged for visitors.

Protection of animal species in the campus through ban of animal hunting in the campus area

The university has taken up various measures to protect the animal species that exist in the campus. One of the important measure that has been taken up is ban on animal hunting in the campus area and also ban on animal slaughtering the campus area. Some of the animal species present in the campus area includes forest swine, rabbits and so on. The university has constructed a 6 feet compound throughout the area to protect the tree and animal species in campus which proved to be major initiative of the University for the Protection of endangered and existing species of animal and tree species.

Promotion of awareness on environment protection through National Service Scheme (NSS)

The university has included National Service Scheme (NSS) in its undergraduate syllabus to create awareness in the students regarding the environmental protection, cleanness and the need for protection of biodiversity in the country. There will be practical class of NSS in the campus where students will be volunteered to clean the campus premises. Apart from the practical class the university also conducts NSS camps where the students will be placed in a village for 15 days. During the stay the students will take up various activities to maintain cleanliness in the villages where they stay. The practical utility of the NSS camp is creation of awareness in the fellow villagers about the environmental cleanliness and health benefits of keeping the village clean. Apart from that in the process of creating awareness the students also learn the village culture and situations.

Practical class on environment protection

The curriculum of the University for undergraduate programmes and pos graduate programme includes syllabus on environmental protection. To name some of the courses include environmental policy and international conventions, introduction to environment and solid waste management. The class includes a theory as well as practical sessions which helps the students to become aware of the environmental protection and policies related to environment protection as well waste management.

Re-creation, restore quality habitats across the University land

The university from time to time takes up recreational and restoration activities in the university premises for the benefit of the flora and fauna that exist in the university campus. The recreational activities of the university include celebration of Vanamahostava (mass planting of tree species), planting by the guests who visits the university and promotion of air and water harvesting parks in the hostel premises.

Provide opportunities for students, staff and the local community to engage with environment such as volunteering opportunities

All the employees of the university including the students will be engaged in one or the other way for the protection of the environment in the university. Some of the activities include volunteering of the students and staff in cleaning the campus premises, mass planting, celebration of vanamahastava. Volunteering in cleaning the college premises is one of the most important activity that has been promotes in the university. The others important activities include 7. Ensure campuses are ecologically diverse and inspiring places to visit and helping people to enjoy the natural environment and 8. Partnership with government departments for enhancing the biodiversity.

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