



BATANGAS STATE UNIVERSITY'S (BATSTATEU'S) POLICY GUIDELINES FOR SUSTAINABLE DEVELOPMENT



1.1.1.6 The use of porous materials for paved pathways is highly encouraged as this helps reduce surface water runoff.

1.1.1.7 Buffer zones for ongoing construction must be established to protect natural vegetation adjacent to the site.

1.1.1.8 All excavated soil must be returned to its original location. It is important to keep the layer position of the topsoil to preserve important nutrients inside.

1.1.1.9 Equipment which produces sound or vibrations must be regulated to minimize ground noise pollution and disturbance.

1.1.2 Green Space Management

1.1.2.1 Open spaces and unbuilt areas are preserved in their natural states (permeable area and natural vegetation) as much as possible. Ecological landscaping methods and green space preservation shall be prioritized.

1.1.2.2 All existing trees, whether native or non-native, shall be preserved as much as possible. If removal is needed, extraction for relocation or replacement of similar species must be implemented. All concerned must have to observe laws requiring the planting of trees in certain places and penalizing unauthorized cutting or destruction thereof (i.e. PD No. 953).

1.1.2.3 Forest patches and other critical natural habitat within the university shall be protected and maintained whenever possible from conversion.

1.1.2.4 Lawns shall not be cemented to encourage infiltration and groundwater recharge as much as possible.

1.1.2.5 The use of native trees and plants throughout the University shall be highly encouraged to promote biodiversity. This reduces fertilizer use and water consumption, preserving groundwater.

1.1.2.6 Fallen trees, existing rocks and natural decomposing biomass shall be left in green spaces and biodiversity corridors as long as it does not endanger human lives.

1.1.2.7 Endemic and indigenous species of flora shall be the top priority in all landscaping programs in the entire university. Whenever feasible, flowering and fruiting trees shall be planted in

1.4.5 Site Sustainability

Site sustainability requires the adoption of planning, design, construction and operation practices that minimize the adverse impact of buildings on ecosystems and water resources. Insofar as applicable, provisions under this Article that is related to Site Sustainability shall be interpreted in such a way that these complement and/or supplement each other.

1.4.5.1 Site / Ground Preparation and Earthworks

Site clearing, grading and excavation shall be planned at the start of construction to mitigate pollution caused by erosion and sedimentation taking into consideration existing endemic foliage as regulated by the DENR.

Measures for site protection shall be in place before the start of construction.

- a. Building site erosion and sedimentation control plan that outlines measures to be applied to prevent soil that can run-off at the natural bodies of water, causing water pollution.
- b. Additional measures to mitigate the effect of pollution and safety on construction conforming to Rule XI of the NBC
- c. Storm water collection management plan iv. Structures or facilities for storm water collection

1.4.5.2 Open Space Utilization

The inclusion of green areas or landscaped areas for indigenous or adaptable species of grass, shrubs and trees will help in providing more permeable surface for the building development's open space and thus allow the re-charging of natural groundwater reservoir, control stormwater surface run-off, cool the building surroundings, and provide indoor to outdoor connectivity for the building occupants, hence must be practiced.

A minimum of fifty percent (50%) of the required Unpaved Surface Area (USA), as required in Rule VII and VIII of the NBC, shall be vegetated with indigenous and adaptable species.

1.4.6 Indoor Environmental Quality

Indoor Environmental Quality requires the adoption of efficient design and operation practices that take into consideration the building environment to improve occupant health, productivity and safety.

1.4.6.1 Minimum Fresh Air Rates



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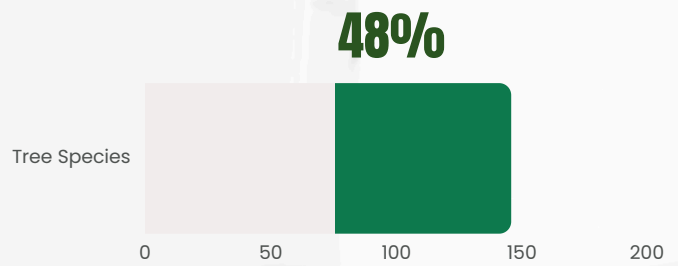
CAMPUS BIODIVERSITY

FY 2023

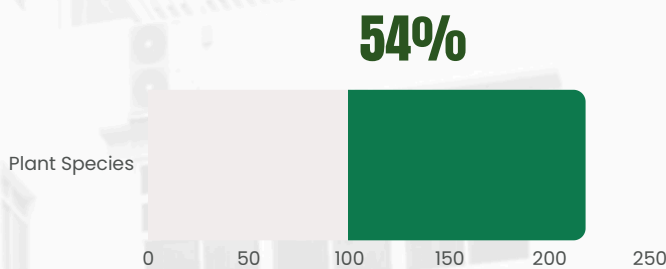
BatStateU-The NEU is home to a diverse range of plant life, with over 146 tree species and 218 plant species identified across its 11 campuses. This biodiversity is vital for ecosystem health and benefits the university community.



110 TREE SPECIES



A key feature of the campus vegetation is its drought resistance. Nearly half of the tree species (48%) and over half of the plant species (54%) are adapted to dry conditions, which is increasingly important due to more frequent droughts.



165 PLANT SPECIES

Although the percentage of drought-resistant species has slightly declined, this is due to the introduction of native species, which are essential for supporting local ecosystems despite being less drought-tolerant.



Source: Environmental Management Units

Leading Innovations, Transforming Lives
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LIST OF TREE SPECIES | FY 2023

Tree Species	Drought-resistant
Acacia	Yes
African tulip Tree	Yes
Almond	Yes
Alim	Yes
Anunay	No
Areca Palm	No
Ashoka Tree	No
Atis	No
Avocado	Yes
Balete tree	Yes
Bamboo palm	Yes
Banana tree	No
Bhuddhist pine	No
Black tea tree	Yes
Blindness	No
Bitaoag	No
Bonsai Balite	Yes
Bread fruit	No
Brush Cherry	Yes
Burmese Rosewood	Yes
Butulan	No
Calamansi	No
Camias	No
Cambodian Dragon tree	Yes
Canary island date palm	Yes
Casoy	No
Castor oil plant	Yes
Cat palm	No
Ceiba tree	Yes
Chinaberry	No
Chinese fan palm	Yes
Clustering fishtail palm	No
Cocoa	No
Coffee Tree	No
Common bamboo	No
Common myrtle	Yes
Council tree	Yes
Cuban royal palm	Yes
Cypress pine tree	Yes
Date Palm	Yes
Devadaru plant	Yes
Dragon tree	Yes
Dwarf umbrella	No
Elephant tree	Yes
Eugenia myrtifolia	Yes
False ashoka	Yes
Fish Tale Palm Tree	Yes
Foxtail Palm	Yes
Golden dewdrops	Yes
Gomilina	Yes
Guava	Yes
Guyabano	Yes
Hardy banana	Yes
Henkel's Yellowwood	Yes
Himbabao	Yes

Tree Species	Drought-resistant
Honduran Mahogany	Yes
Indian Mast Tree	Yes
Jackfruit	Yes
Jamaica Cherry	Yes
Java plum	Yes
Kabalyero	No
Kakawate	Yes
Laping budak	No
Lemon	Yes
Lucky bamboo	Yes
Lucban	No
Macarthur Palm	No
Mahogany	Yes
Malabar plum	Yes
Malunggay	Yes
Mango tree	Yes
Mandarin Orange	No
Madre Cacao	No
Mast Tree	Yes
Melaloni	Yes
New Caledonia pine	No
Norfolk island palm	Yes
Narra	Yes
Pacific beauty palm	No
Palm Tree	Yes
Papaya	No
Peacock tree	Yes
Pecan	Yes
Pisa	Yes
Pinwheel flower	No
Pride of India	Yes
Rainbow tree	No
Rambai	Yes
Rambutan	Yes
Rain tree	Yes
River Tamarind	Yes
Royal poinciana	Yes
Sampaloc	Yes
Santa Elena	Yes
Sawtooth oak	Yes
Sea grape tree	Yes
Senegal mahogany	Yes
Sika Palm Tree	Yes
Solitaire palm	Yes
Syzygium	Yes
Talisay	Yes
Tibig	Yes
Tuba	Yes
Tropical Almond	Yes
Wattles	Yes
Weeping fig tree	Yes
Yellow oleander	Yes
Yew plum pine	Yes
Ylang Ylang	Yes

Source: Environmental Management Units



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LIST OF TREE SPECIES | FY 2023

Tree Species	Drought-resistant
African Sumac	Yes
Aglaonema	No
Alocasia	Yes
Aloe Vera	Yes
Areca	Yes
Areca Palm	Yes
Arrow bamboo	No
Arrow Root	No
Arrowhead plant	No
Arabian Jasmine	Yes
Ashoka live plant	No
Balete	Yes
Bamboo cycad	Yes
Banana	No
Beach spider lily	No
Bird's Nest Anthurium	Yes
Bird's Nest fern	No
Bitter ginger	No
Blushing Bromelaid	Yes
Boatlily	Yes
Boston fern	No
Bougainvilla	Yes
Broadleaf Lady palm	No
Brush cherry	Yes
Cactus	Yes
Caladium	Yes
Cape Jasmine	No
Caricature plant	Yes
Caruther's falseface	No
Cathedral Bells	No
Champane	No
Chandelier plant	Yes
Chinese banyan	Yes
Chinese evergreen	Yes
Chinese hibiscus	No
Chinese Ixora	Yes
Chinese ladder brake fern	No
Chinese Violet	Yes
Chili Pepper	Yes
Coleus	Yes
Common thicket spurflower	Yes
Copper leaf	Yes
Corn plant	Yes
Crepe ginger	No
Creeping Juniper	Yes
Creeping pig	Yes
Crown of Thorn	Yes
Croton	No
Daisy	Yes
Desert Roses	Yes
Devil's Backbone	Yes
Devil's Ivy	Yes
Dischidia oiantha	Yes
Dracaena Marginata	Yes
Variegata	Yes
Dumb Cane	Yes
Dwarf umbrella tree	No
Ebony	Yes

Tree Species	Drought-resistant
Elephant's ear	Yes
Euphorbia Tithymaloides	Yes
Fiddle leaf fig	No
Firebush	Yes
Firecracker flower	Yes
Firespike	Yes
Flame of the woods	Yes
Flax	Yes
Flax lily	Yes
Fortune Plant	Yes
Fukien Tea Tree	Yes
Gabi	No
Garden balsam	No
Gardenia	Yes
Geoppertia louisae	Yes
Geranium aralia	No
Giant Cabuya	Yes
Giant sword fern	Yes
Giant taro	No
Golden bamboo	Yes
Golden dewdrops	Yes
Golden kopia	Yes
Golden Lobster Claw	Yes
Golden pothos	Yes
Gold dust dracaena	Yes
Gumamela	Yes
Green aralia	Yes
Heart of Jesus	No
Hop bush	Yes
Horse Tail	No
Indian shot	Yes
Ipot Palm	Yes
Jamaica cherry	Yes
Japanese azelea	No
Japanese forest grass	Yes
Joseph's coat	Yes
Jewel of opar	Yes
Lemon	Yes
Lemon grass	Yes
Lemon lime philodendron	Yes
Lily turf	Yes
Limnophila	Yes
Lucky bamboo	Yes
Luya	Yes
Matdo Plant	Yes
Mentigi	Yes
Miagos bush	Yes
Ming Aralia	Yes
Mock Lime	Yes
Montbretia	No
Moringa	Yes
Moses in the cradle	Yes
Mother of Thousands	Yes
Mother-in-law's tongue	Yes
Narrow sword fern	Yes
New Zealand Flax Lily	No
Orange jessamine	No
Orange jasmine	No

Source: Environmental Management Units

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LIST OF TREE SPECIES | FY 2023

Tree Species	Drought-resistant
Opposite leaf fig	Yes
Palm	Yes
Pandan	Yes
Paper Flower	Yes
Parrot's beak	Yes
Peace lily	No
Pecan	Yes
Pigeonberry	Yes
Pink dalmatian	Yes
Pink rain lily	Yes
Pinstripe plant	No
Pinwheel flower	Yes
Poison bulb	No
Prickly Juniper	Yes
Racemose Asparagus	Yes
Rain Lily	Yes
Red Siam Chinese green	Yes
Screwpine	Yes
Shield Aralia	Yes
Shining bird of paradise	Yes
Siamese Rough bush/ distant	No
Sili	Yes
Silver squill	Yes
Sisal	Yes
Snake Plant	Yes
Song of India	Yes
Spider lily	Yes
Spider plant	Yes
Spotted evergreen	Yes
Striped barbados lily	Yes
Sulfur cosmos	No
Tasman Flax Lily	Yes
Texas Ranger	Yes
Ti plant	No
Trail bromeliad	Yes
Tree philodendron	No
Tuba	No
Umbrella palm	No
Variegated flax lily	Yes
Variegated matchstick	No
Vromeliad	No
Walking iris	No
Water Canna	No
Weeping fig	Yes
Welcome plant	Yes
White turmeric	No
Yellow Copper leaf	Yes
Yellow Pandan	No
Zanszibar Gem	Yes
Zebra plant	Yes

Source: Environmental Management Units

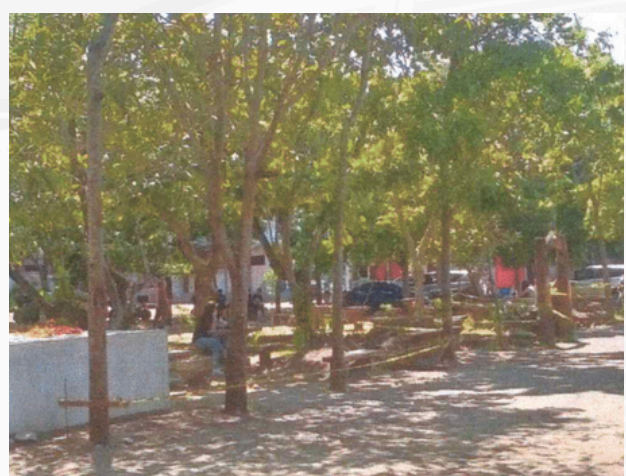
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ARASOF NASUGBU GREEN SPACE MINI FOREST



The Environmental Management Unit (EMU) of BatStateU ARASOF-Nasugbu has been nourishing a Mini Forest in 1,541 sqm of land at the heart of its campus wherein seventy-five (75) Talisai (*Terminalia catappa*) trees and twelve (12) fruit-bearing trees are growing for more than twenty-eight (28) years now.

The Mini Forest is one of the measures that the University does to mitigate the excess use of non-renewable energy and contribute in the management of the use of water resources. It is a program which aids in conserving electricity and water consumption of the university. The tall and thick foliage of the Talisai trees provides shade and cools the surroundings of the campus and the adjacent buildings reducing the energy requirement to cool the classrooms and serves as resting area for students utilizing the fresh air in shaded area reducing the need to stay in classrooms and use energy resources. The Talisai trees being salt and drought resistant trees are grown and nurtured without having the need to spend for fresh water to water them. The Mini Forest serves as a catch basin of water collected in the grounds of the campus during heavy rains, which the Talisai trees use for growth and nourishment.

The green space of the University supports the various Sustainable Development Goals especially SDG #6 promoting sustainable water and energy utilization.

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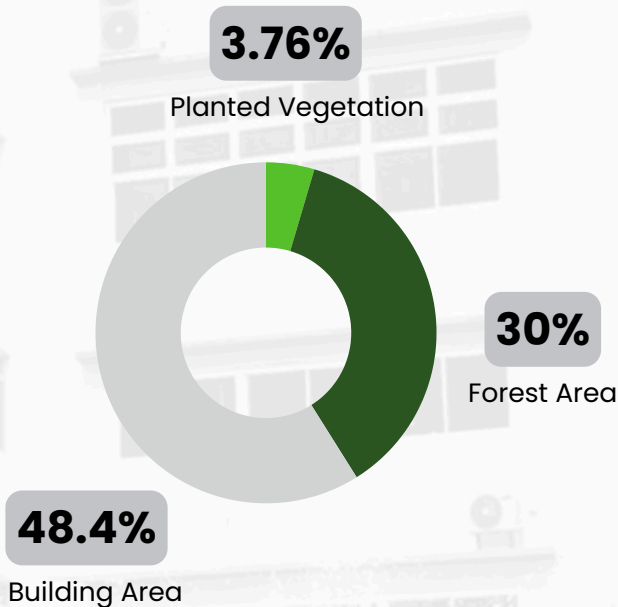
GREEN SPACE MANAGEMENT

FY 2023

Green Space



University's largest campuses are situated in the urban landscape of Batangas Province. To balance the city's urban feel, the University has set aside significant areas for green spaces. These include native plant gardens, lawns, and forests with drought-resistant trees.



15,624.06 sqm
Planted Vegetation

124,409.74 sqm
Forest Vegetation

140,033.8 sqm
Green Space Area

Proportion of Green Spaces in the University Land Area

Source: Environmental Management Units