UNIVERSITAS NEGERI YOGYAKARTA

Sustainably Excellent, Creative, and Innovative

SUSTAINABILITY REPORT 2023

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Green Campus UNY

Universitas Negeri Yogyakarta (UNY) officially implements a green campus program based on **Rector Regulation Number 20 of 2017**, strengthened by **Rector Regulation Number 16 of 2021**.

Some of UNY's green campus policies:

- Preserving trees;
- Provision of trash bins;
- Recycling of waste and garbage;
- Saving electricity and water;
- Prohibition of smoking carelessly;
- Prohibition of hunting animals;
- Prohibition of dumping chemicals in waterways.

Evaluation & Performance Report

1 Partisipasi UNY dalam UI GreenMetric.

UNY mengikuti perangkingan UI GreenMetrics sejak tahun 2016. Pada tahun 2016, UNY berhasil menempati peringkat 31 di Indonesia dan peringkat 446 di dunia. **Pada tahun 2022, UNY berhasil menempati peringkat 17 di Indonesia dan peringkat 126 di Dunia.** Meningkatnya peringkat UNY baik di tingkat nasional maupun dunia adalah bukti bahwa peningkatan kinerja UNY dalam pengembangan kampus hijau yang berkelanjutan.

UNY Rooftop Garden

https://greenmetric.ui.ac.id/rankings/ranking-by-country-2022/Indonesia

2 Pelaporan Program Pendukung Kampus Hijau UNY

Pelaporan upaya-upaya UNY dalam pengembangan kampus hijau yang berkelanjutan melalui '**Sustainability Report**" secara berkala setiap tahun Penerbitan laporan ini adalah bagian dari upaya sosialisasi hasil kerja dan seligus bagian dari refleksi pelaksanaan program-program pendukung kampus hijau di UNY

Setting & Infrastructure

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Campus Sites

- **Karangmalang Campus** (main campus, urban setting)
- **Kenari Campus** (urban campus)
- **Bantul Campus** (urban campus)
- **Wates Campus** (rural setting)
- **Gunungkidul Campus** (rural Setting)

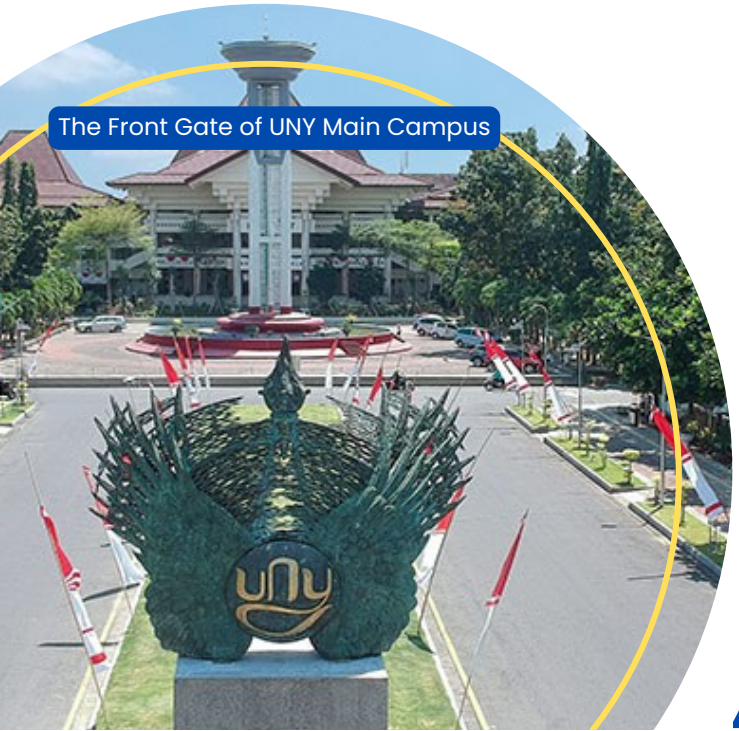
Forest Area in the Campus

Planted Vegetation

UNY Rooftop Garden

Regular Maintenance & Tree Planting Program

Repainting Works



The Front Gate of UNY Main Campus

Natural building lighting and air circulation design

Digital Library and the natural light design

Aesthetic Pond at UNY

Support Access For Students and Guest With Disabilities

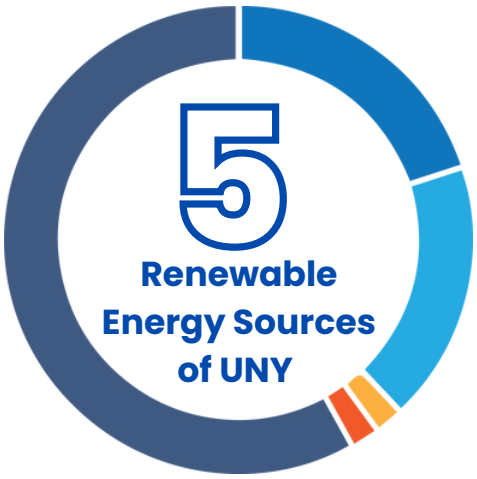
Parking facilities

Bus Stop at Campus

Sport facilities at Gunungkidul Campus

UNY Swimming Pool

Energy & Climate Change



- Solar Power Plant (43,920 kWh)
- Wind Power Plant (40,992 kWh)
- Piko Hydro Power Plant (1,318 kWh)
- Biogas Power Plant (1,318 kWh)
- Microhydro Power Plant (131,760 kWh)

Water-Based Power Plant

UNY Solar Panel at Rooftop

UNY Biogas Power Plant for Comunity

UNY Wind Power Plant

Solar panel installation at Faculty of Engineering UNY

Greenhouse Gas Emission Reduction Program

1 Free bicycles for transportation within faculties or units on campus

These bicycles are not limited to the main campus but are also available at other local campuses. Each faculty and unit has color-coded bicycles. UNY's **Inobike**, designed by students from the Faculty of Engineering, UNY, is a noteworthy addition with a lighter weight compared to standard bicycles

Inobike-free to use bicycles

Green painted bicycle lanes

2 R&D support on eco-friendly vehicle

UNY has supported the development of **Astrobike** and Inobike. UNY also takes pride in the development of the **GARUDA** electric car, which has achieved considerable success in numerous international competitions

Garuda UNY at eco-marathon

3 Supporting community with green technology

UNY lecturer builds a solar power plant to help the irrigation of rice fields in Sleman. This project is part of UNY community service program on promoting sustainable energy for practical solution.

Solar power plant for irrigation

4 Regular inspection of vehicles for carbon emissions

These inspections are conducted by the Faculty of Engineering and are scheduled biannually. This event conducted for official UNY vehicle and public who interested to get a check up session.

Waste

4

Waste Recycling Policy of UNY

UNY has several programs related to waste and waste management:

- Organic waste recycling
- Plastic waste recycling
- Hazardous waste management
- Recycling of waste from student practicum

Organic waste recycling process using maggot for fertilizer production

Various plastic waste-based product developed by UNY

Hazardous waste packing before processed by third party

Recycling aluminum waste

Plastic Waste into Hollow Concrete

Water

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Water Conservation Program of UNY

- Concrete Pot
- Biopore
- Conventional Drainage System
- Alternative Drainage
- Water Treatment
- SPAH(Rainwater Utilization System)
- Detention Pond

1 Concrete Pot

Planting trees in concrete pots can bind and retain water discharge. During the rainy season, tree roots play an important role in absorbing rainwater in the environment around UNY so that rainwater does not flow in vain. Apart from that, tree roots can also prevent erosion from rainwater. Tree trunks function as water reserves during the dry season, so groundwater availability is continuously maintained.

Concrete Pot

2 Biopore

Biopores are small holes created as water absorption areas. Currently there are 160 biopore infiltration hole points, with specifications of a depth of 80 cm and a diameter of 4 inches.

Biopore

3 Conventional Drainage System

The campus drainage system in UNY has been well planned so that it can function according to its design capacity to drain surface water so that it does not harm the surrounding community. UNY also develop productive discussion with community representatives regarding the construction of good drainage channels that would not harm the surrounding community.

Conventional Drainage System

4 Alternative Drainage

Alternative drainage is channeling rainwater to the roof of the building through pipes on each side of the outside of the building, which is then connected to the Rainwater Utilization System in the campus area.

Alternative Drainage

5 Water Treatment

UNY water treatment facility has ensured that groundwater from 7 deep wells in UNY is safe for daily use.

Water Treatment Facility

6 SPAH(Rainwater Utilization System)

In 2019, UNY only had 611 SPAH units. Currently, UNY has 873 SPAH units out of the 1,204 SPAH units that should exist. SPAH dimensions are 80 cm in diameter and 6 m deep. UNY is also committed to making SPAHs in the surrounding communities (Padukuhan Karangmalang, Mrican, Santren, and Samirono) according to the amount determined by the DIY PUP-ESDM Service as a groundwater conservation effort related to the use of deep groundwater.

SPAH in UNY

SPAH in Community Area

7 Detention Pond

The detention pond functions as a reservoir and absorbs water from the surrounding buildings. Detention ponds are used to regulate and accommodate the supply of rainwater flows to prevent or reduce water overflows during the rainy season and reduce the risk of flooding in the area as well as water reserves during the dry season.

Detention pond in the Health Sport Center (HSC) UNY

Transportation

- Special parking for bicycles
- Free bicycles for mobilization for staff and students within faculty or units on campus
- Regular checks of vehicles' carbon emissions.
- Sign to order vehicles to turn off engine when idle/parking
- Electric car for faculties and unit mobilization at main campus
- University support for zero emission vehicle R&D
- Event to promote zero emission vehicle

Outdoor and Indoor Bicycle Parking Spots

Free to Use Bicycles within Campus Area

Carbon Emissions Check

Sign to order vehicles to turn off engine when idle/parking

Electric car for faculties and unit mobilization at main campus

UNY business incubator successfully support the development of **Astrobike** as one of growing e-bike based business

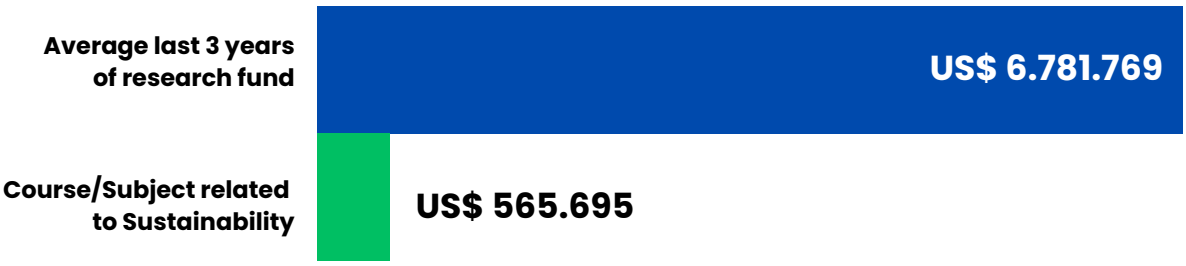
Garuda UNY Electric Car

UNY Fun Bike Events

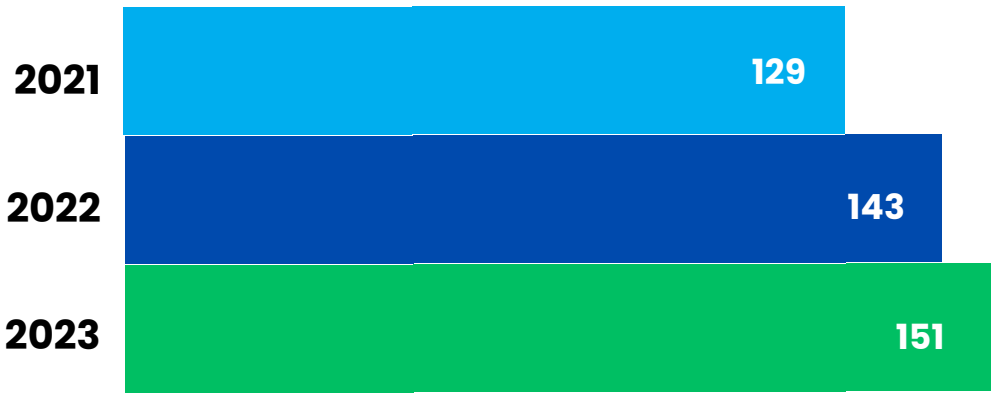
Education

Course/Subject related to Sustainability

Research Funds Dedicated to Sustainability 2021-2023



Number of Events Related to Sustainability hosted or organized by UNY 2021-2023



Sustainablity community services project organised and/or involving students

- Matching Fund
- Wirausaha Merdeka
- KKN
- PPL
- Industrial Practices
- RIIExpo

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uny.ac.id