ANNUAL SUSTAINABILITY REPORT
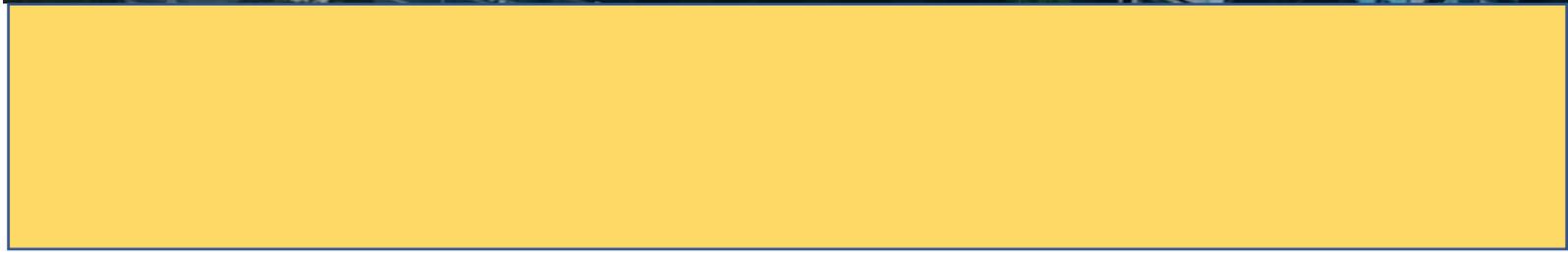
UNIVERSITAS AHMAD DAHLAN

2022

Dr. Muchlas Arkanuddin, M.T.
Rector of Universitas Ahmad Dahlan

Ahmad Dahlan University is committed to realizing an environmentally friendly and sustainable campus through various Higher Education chess dharma activities. UAD encourages the academic community to innovate to keep up with the challenges of the times, adapt to technological advances, and harmonize campus activities by utilizing digital technology to reduce non-renewable energy consumption. We are sure that UAD can be a comfortable home for present and future generations!

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan (UAD)
Country   :   Indonesia
Web Address   :   https://uad.ac.id

[1] Setting and Infrastructure (SI)

[1.3] Number of Campus Sites

	Universitas Ahmad Dahlan Campus 1 Jl. Kapas No.9, Semaki, Kec. Umbulharjo, Kota Yogyakarta
	Universitas Ahmad Dahlan Campus 2 Jl. Pramuka No.42, Pandeyan, Kec. Umbulharjo, Kota Yogyakarta
	Universitas Ahmad Dahlan Campus 3 Jl. Prof. DR. Soepomo Sh, Warungboto, Kec. Umbulharjo, Kota Yogyakarta

Universitas Ahmad Dahlan
Main Campus

Jl. Ringroad Selatan, Kragilan, Tamanan, Kec. Banguntapan, Kabupaten Bantul

Universitas Ahmad Dahlan
Campus 5

Jalan Ki Ageng Pemanahan No. 19, Sorosutan
Kota Yogyakarta

Universitas Ahmad Dahlan
Campus 6

Jl. Wates - Purworejo No.234, Danangan, Triharjo, Wates, Kabupaten Kulon Progo

Description:

Universitas Ahmad Dahlan (UAD) is developed from the Institute of Teacher Training and Education (IKIP) Muhammadiyah of Yogyakarta. IKIP Muhammadiyah of Yogyakarta, as a higher education institution, was developed from the branch of FKIP Muhammadiyah of Jakarta in Yogyakarta, which was established on November 18th, 1960. FKIP Muhammadiyah Yogyakarta was the continuation of BI Muhammadiyah course in Yogyakarta, which was established in 1957. At that time, BI course provided a number of majors, including Educational Sciences, Law Civics and Economics. On December 19th, 1994 with the Decree (SK) of the Minister of Education and Culture of the Republic of Indonesia Number: 102/D/0/1994, it was determined that IKIP Muhammadiyah of Yogyakarta was converted then into Universitas Ahmad Dahlan

Universitas Ahmad Dahlan has 6 campuses dispersed across the Province of the Special Region of Yogyakarta. Campus 1, campus 2, campus 3, and campus 5 are located in the city of Yogyakarta. Campus 4, which is considered the main campus, is located in Bantul Regency, and Campus 6 is located in Kulonprogo Regency. UAD has 11 faculties and Types of higher education institutions as comprehensive education.

In the UI GreenMetric 2021 assessment, we proposed that campus 4 or the main campus be submitted as an assessment site because the main campus includes an overview of all campuses at UAD. The location of UAD is in the city center so it is easily accessible.

Additional evidence link (i.e., for videos, more images, or other files that are not included in this file):
1. Facility

https://s.uad.id/library	https://s.uad.id/Observatorium

https://s.uad.id/Amphitarium

2. UAD Profile

https://s.uad.id/Profile

3. Profile UAD Green Campus
   Available on this link https://youtu.be/8piaoDPfuEI

https://s.uad.id/Facility

Template for Evidence(s)
UI GreenMetric Questionnaire
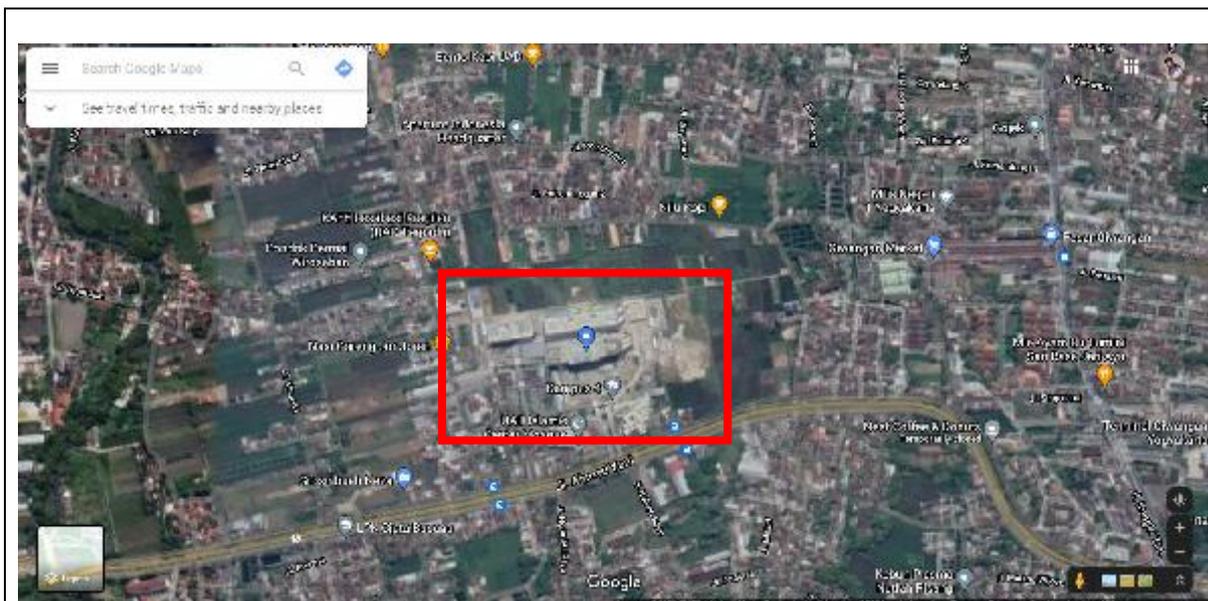
University   :   Universitas Ahmad Dahlan (UAD)
Country   :   Indonesia
Web Address :   https://uad.ac.id

[1] Setting and Infrastructure (SI)

[1.4] Campus Setting

Universitas Ahmad Dahlan (City Center)

Universitas Ahmad Dahlan (City Center)

Description:

The main campus of Universitas Ahmad Dahlan is located in the city center. The main campus of Universitas Ahmad Dahlan is precisely located in Bantul Regency. The regency has an area of 506.85 km^2 and a population of 1.029.9797 people. Documentation of this criteria is also available on this link https://youtu.be/8piaoDPfuEI

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan (UAD)
Country   :   Indonesia
Web Address   :   https://uad.ac.id

[1] Setting and Infrastructure (SI)

[1.5] Total Campus Area (meter^2)

The Total of Campus Area (Universitas Ahmad Dahlan, Indonesia)

Description:

Total campus area: 81.831,92 m^2
Total distance/circumference: 2,03 km (1.26 mi) = 2.030 m
Documentation of this criteria is also available on this link https://youtu.be/8piaoDPfuEI

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan (UAD)
Country   :   Indonesia
Web Address   :   https://uad.ac.id

 [1] [Setting & Infrastructure]

[1.7] Total campus buildings area

Building A (Mosque)
Area: 1.286 m^2

Building B (Faculty of Medicine)
Area: 1.856 m^2

Building C (Student Dormitory)
Area: 558 m^2

Building D (Laboratory)
Area: 3.259 m^2

Building E (Main Building)
Area: 3.760 m^2

Description:

Building name	Total Area
Building A (Mosque)	1.286 m^2
Building B (Faculty of Medicine)	1.856 m^2
Building C (Student Dormitory)	558 m^2
Building D (Laboratory)	3.259 m^2
Building E (Main Building)	3.760 m^2
Total	10.719 m^2

Documentation of this criteria is also available on this link https://youtu.be/8piaoDPfuEI

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan (UAD)
Country   :   Indonesia
Web Address :   https://uad.ac.id

 [1] Setting & Infrastructure

[1.8] The ratio of open space area to total area

Description:
Ratio of open space towards total area: 86,90 %

Total Campus Area	81.832 m^2
Total Campus Ground floor area of Building	10.716 m^2
Ratio of open space towards total area	86,90%

Documentation of this criteria is also available on this link https://youtu.be/8piaoDPfuEI

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan (UAD)
Country   :   Indonesia
Web Address   :   https://uad.ac.id

[1] Setting and Infrastructure (SI)

[1.9] Total Area on Campus Covered in Forest Vegetation (M^2)

Universitas Ahmad Dahlan Area Campus

Forest Vegetation Area (Universitas Ahmad Dahlan, Indonesia)

Description:

Total Campus Area	81.832 m^2
Total Campus covered in forest vegetation	7.663 m^2
Percentage of the area on campus covered in forest vegetation	9,36 %

Documentation of this criteria is also available on this link https://youtu.be/8piaoDPfuEI

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan (UAD)
Country   :   Indonesia
Web Address :   https://uad.ac.id

[1] Setting and Infrastructure (SI)

[1.10] Total area on campus covered in planted vegetation (meter^2)

Universitas Ahmad Dahlan campus site

Garden 1	Garden 2
Planted Vegetation Area (Universitas Ahmad Dahlan, Indonesia)	

Garden

UAD Grass Field

Internal Planting

Description:

Total campus Area	81.832 m^2
Total planted vegetation	44.069 m^2
Percentage of the area on campus covered in planted vegetation	53,85 %

Documentation of this criteria is also available on this link https://youtu.be/8piaoDPfuEI

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan (UAD)
Country   :   Indonesia
Web Address   :   https://uad.ac.id

[1] Setting and Infrastructure (SI)

[1.11] Total area on campus for water absorption besides the forest and planted vegetation (meter^2)

| Street 1 | Street 2 |

Total area on campus for water absorption besides the forest and planted vegetation
(Universitas Ahmad Dahlan, Indonesia)

Description:

Total campus Area	81.832 m^2
Total area on campus for water absorption	36.198 m^2
Percentage of the area on campus covered in planted vegetation	44,23 %

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan (UAD)
Country   :   Indonesia
Web Address   :   https://uad.ac.id

[1] Setting and Infrastructure (SI)

[1.18] University budget for sustainability effort (in US Dollars)

	2019	2020	2021	Average
Budget Total	$ 7.332.593,33	$ 6.091.046,67	$ 29.575.483,87	$ 14.188.701,08
Sustainability Budget	$ 1.173.214,93	$ 913.657,00	$ 4.436.322,58	$ 2.151.958,69
			Percentage	15,16 %

Description:

-        The average percentage of the budget of Universitas Ahmad Dahlan is 15,16 %

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan (UAD)
Country   :   Indonesia
Web Address :   https://uad.ac.id

[1] Setting and Infrastructure (SI)

[1.20] Percentage of operational and maintenance activities during the Covid-19 pandemic

The building maintenance

| The classroom maintenance | The Air Condition Maintenance |

disinfectant spray	Building maintenance

Chancellor's Circular about operation activities during the Covid-19 Pandemic	The Covid-19 protocol arrangement

Description:
The operational and maintenance activities during the covid-19 pandemic is 100% controlled. All buildings are fully operated, but all academic activity is limited to 50% of WFO (working from office) and the rest 50% is WFH (Working from Home). All activities on campus must have permission from the task force of Covid-19 (Satgas Covid-19) of UAD.

1	Total campus buildings area	10.719 m^2
2	Total operated building	10.719 m^2
	Percentage building that operated and maintenance	100%

Additional evidence link (i.e., for videos, more images, or other files that are not included in this file):

https://uad.ac.id/id/satgas-covid-19/

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan (UAD)
Country   :   Indonesia
Web Address   :   https://uad.ac.id

[1] Setting and Infrastructure (SI)

[1.21] Campus facilities for disable, special needs and or maternity care

The disabled road/ pathaway	Accessible toilet

Lift for disability

| Pojok ASI (Lactation Room) | Pojok ASI (Lactation Room) |

Description:

1. Accessible toilet, lift, and road for disabled people
2. Lactation room is a private room for staff who are breastfeeding
3. Facilities exist in all buildings and fully operated
4. Documentation of this criteria is also available on this link https://youtu.be/8piaoDPfuEI

Additional evidence link (i.e., for videos, more images, or other files that are not included in this file):

https://uad.ac.id/id/ciptakan-kampus-ramah-asi/	https://persmaporos.com/menuju-uad-universitas-andalan-disabilitas/
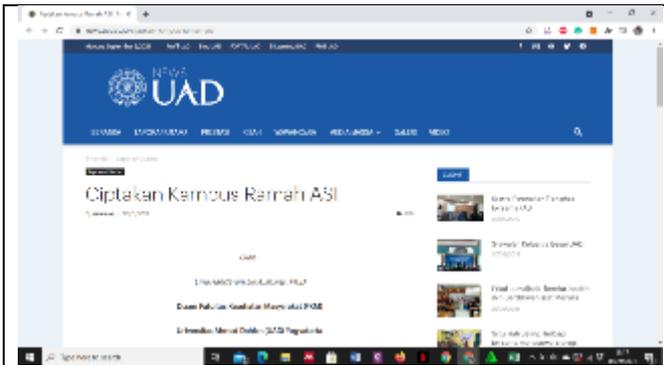
Template for Evidence(s)
UI GreenMetric Questionnaire

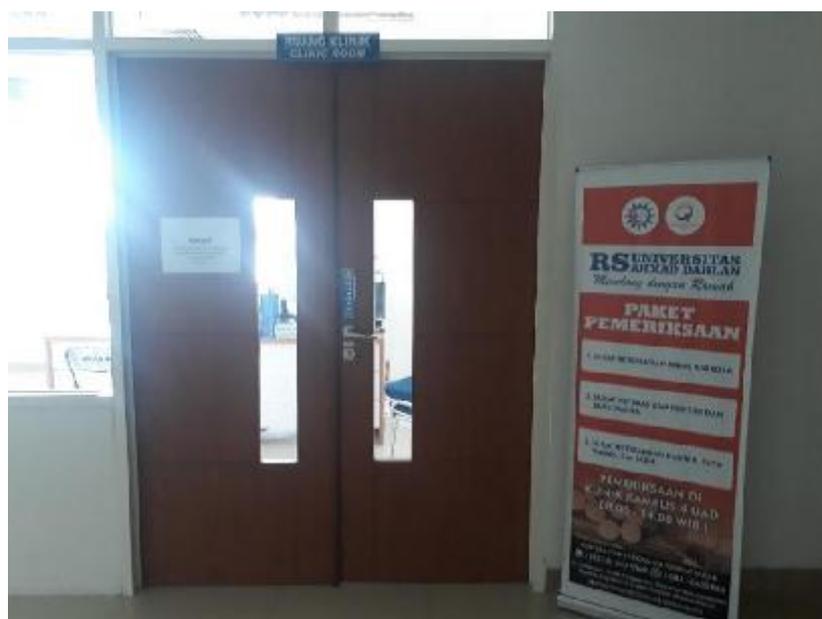University   :   Universitas Ahmad Dahlan (UAD)
Country   :   Indonesia
Web Address   :   https://uad.ac.id

[1] Setting and Infrastructure (SI)

[1.22] Security and safety facilities

CCTV in Parking Area	Indoor CCTV
CCTV in Lift area	CCTV and hydrant

Outdoor Fire Hidrant

Emergency button

Indoor Fire Hidrant

CCTV Controling Room

Emergency Phone

Description:

1. The CCTVs covered all campus area of Universitas Ahmad Dahlan
2. Fire Hydrant at Universitas Ahmad Dahlan
3. All security stuff is available. It responds to accidents, crime, fire, and natural disasters in less than 10 minutes.
4. Documentation of this criteria is also available on this link https://youtu.be/8piaoDPfuEI

Additional evidence link (i.e., for videos, more images, or other files that are not included in this file):

Training

| https://news.uad.ac.id/uad-gelar-pelatihan-dan-simulasi-tanggap-darurat/ | https://bsdm.uad.ac.id/pelatihan-penanggulangan-kebakaran-di-kampus-uad/ |

Safety induction

| https://www.youtube.com/watch?v=znZ9dtFY5pM | https://www.youtube.com/watch?v=JbRTBkkOrLE |

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan (UAD)
Country   :   Indonesia
Web Address   :   https://uad.ac.id

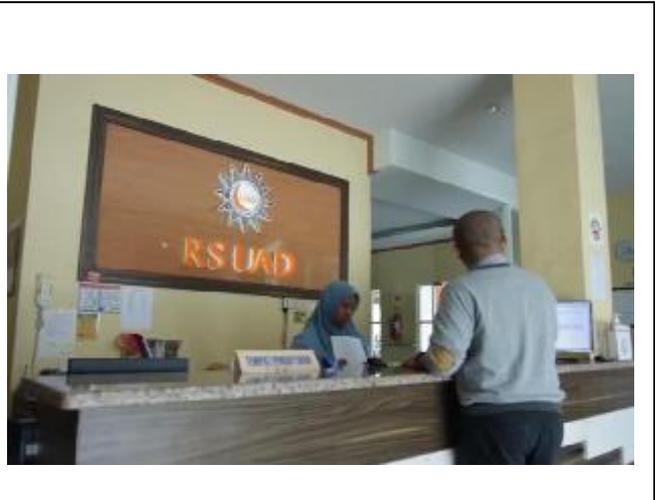[1] Setting and Infrastructure (SI)

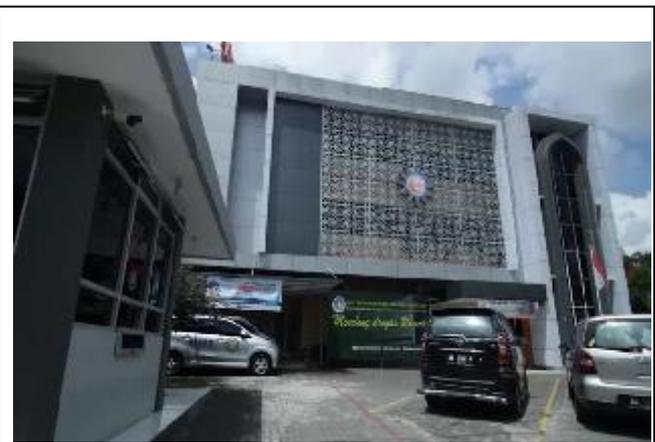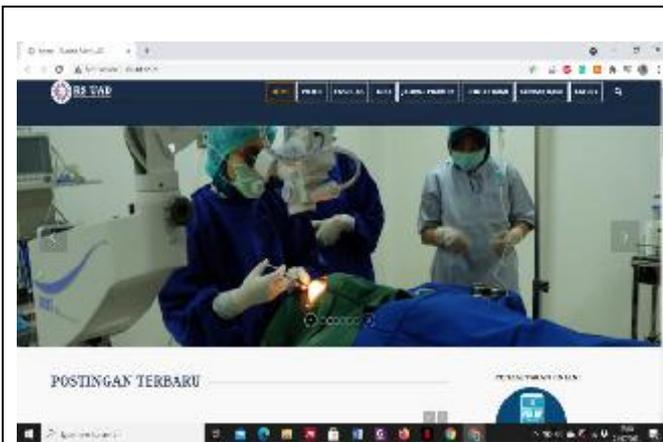[1.23] Health infrastructure facilities for students, academics and administrative staffs' wellbeing

UAD Clinic

UAD Clinic Room

UAD Hospital

UAD Hospital

Certification for Personal Health Competency
Original version can be accessed on this link
https://drive.google.com/drive/folders/1BT1hYktDNy3gZcX4Rz-SKutrs77MJWU6?usp=sharing

Description:

1. Universitas Ahmad Dahlan provides health services with comprehensive service support for the entire academic community.
2. Universitas Ahmad Dahlan also has a Covid-19 Shelter. It is used for isolation for residents who are positively infected by the Covid-19 with or without mild symptoms. The shelter building consists of five floors, the first floor is used as an office, support room, and one VIP room.
3. Health facilities are available and accessible to the public.
4. Documentation of this criteria is also available on this link https://youtu.be/8piaoDPfuEI

Additional evidence link (i.e., for videos, more images, or other files that are not included in this file):

https://shelter.uad.ac.id/	https://news.uad.ac.id/uad-resmikan-shelter-covid-19/
Shelter Covid-19 Universitas Ahmad Dahlan	

| http://rsuad.co.id/ | https://www.youtube.com/watch?v=CtSIz0dEfBA |

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan (UAD)
Country   :   Indonesia
Web Address   :   https://uad.ac.id

[1] Setting and Infrastructure (SI)

[1.24] Conservation: plant, animal, and wildlife, genetic resources for food and agriculture secured in either medium or long-term conservation facilities

Fish Pond

Green House

Student Innovative Product of DILAN (*Liquid Biocompost Plant*) in Greenhouse

Description:

- Greenhouse is used for vegetable plantings for campus residents.
- Fish pond for fish conservation area.
- Conservation programs such as the greenhouse are fully implemented. The green house is also used in the department of biology education and the biology department
- Documentation of this criteria is also available on this link https://youtu.be/8piaoDPfuEI

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan
Country   :   Indonesia
Web Address   :   https://uad.ac.id/en/

[2] Energy and Climate Change (EC)

[2.1] Energy Efficient-Appliance Usage

Example of Energy Efficient-Appliance Usage: Use of inverter air conditioner (Universitas Ahmad Dahlan, Indonesia)

Description:

Ahmad Dahlan University is committed to actualize a green campus. The starting point of this process is begun with the provision of energy-efficient equipment to reduce the use of electricity and emissions. These energy saving tools are including LED lamps, fan installments, and AC inverters. UAD saves about 80.5% of energy compared to the total energy spent using LED lamps and AC inverters. All UAD buildings on campus four already use energy-efficient equipment. This is the aim of supporting the realization of a green and sustainable campus.

Calculation:

Device	The appliance of energy-efficient compared to the total device installed	Total number energy Efficient appliances	Percentage
LED Lamp	636/7.248	8.395 W/ 95.673 W	91%
AC inverter	579/836	1.078.654 W/ 1.813.327 W	69 %
		Average Percentage	80.5%

Template for Evidence(s)
UI GreenMetric Questionnaire

University : Universitas Ahmad Dahlan
Country : Indonesia
Web Address : https://uad.ac.id/en/

[2] Energy and Climate Change (EC)

[2.3] Smart Building Implementation

*Min. at least five requirements for each building

No.	Name	Place	automation		safety				energy		water		Indoor environment				lighting				Building Area (m²)
			B1	B2	S1	S2	S3	S4	E1	E2	A1	A2	I1	I2	I3	I4	L1	L2	L3	L4	
1	Universitas Ahmad Dahlan, 4th Campus; Medicine Building	Yogyakarta, Indonesia		X		X	X										X			X	1856
2	Universitas Ahmad Dahlan, 4th Campus; Laboratory Building	Yogyakarta, Indonesia				X	X										X			X	3259
3	Universitas Ahmad Dahlan, 4th Campus; Main Building	Yogyakarta, Indonesia		X		X	X										X			X	3760
4	Universitas Ahmad Dahlan, 4th Campus; Islamic centre building	Yogyakarta, Indonesia				X	X										X			X	1286
5	Universitas Ahmad Dahlan, 4th Campus; Dormitory building	Yogyakarta, Indonesia				X	X										X			X	558
Total																					10.719

*Please compile one row for each building (or homogeneous part of it) by ticking with an "X" for each requirement*

Smart building implementation

$$\frac{}{} \times 100\%$$

$$\frac{5,616 \quad ^2}{10,719 \quad ^2} \times 100\% = 52\%$$

Note: One building could be classified as a smart building if it has a minimum of 5 features. Please add the total smart building area from buildings classified as smart buildings.

All Buildings at 4th Campus, Universitas Ahmad Dahlan
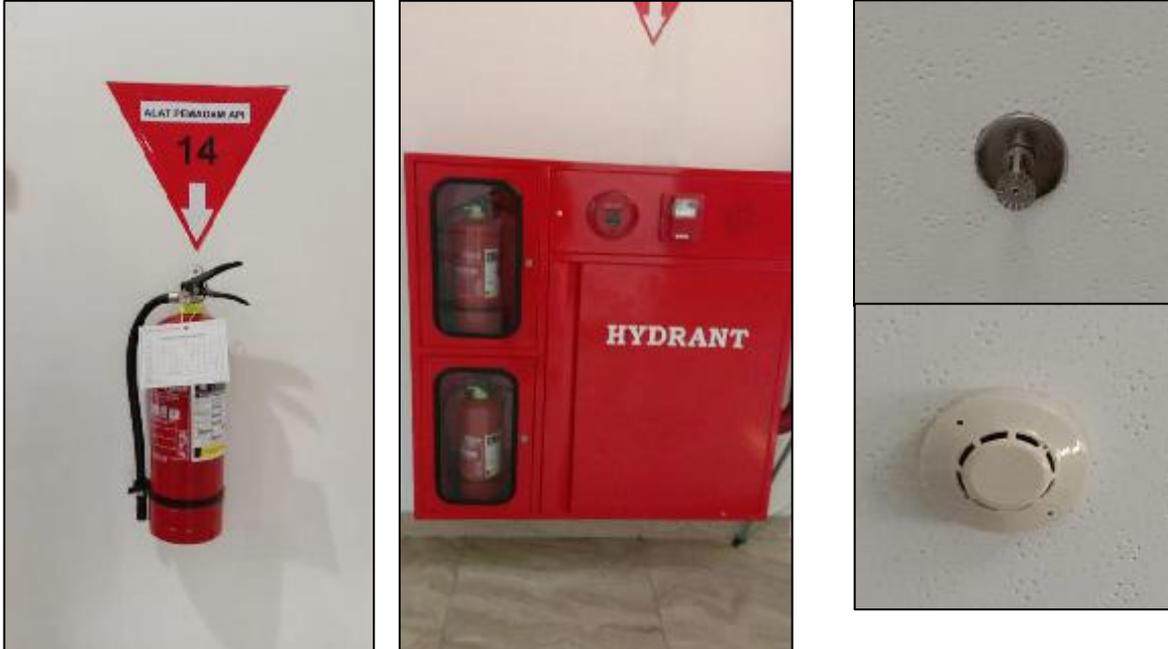
Firefighting system in all buildings (Universitas Ahmad Dahlan, Yogyakarta, Indonesia)

Central AC controller app – (Universitas Ahmad Dahlan, Yogyakarta, Indonesia)

CCTV – (Universitas Ahmad Dahlan, Yogyakarta, Indonesia)

| LED - All buildings use LED lights (Universitas Ahmad Dahlan, Yogyakarta, Indonesia) | Natural Light – All buildings are designed to have natural light |

UAD buildings are built in a modern way to keep the building as natural as possible. The pro-formation of the building with air circulation together with fins and windows makes classrooms and offices not require excessive air conditioning. The presence of windows allows for a bright room without the need to turn on unnecessary lights.

The UAD building is equipped with automation that supports all equipments to be controlled remotely, including air conditioning control and lighting control. In addition, the escalator at UAD is smartly designed to slow down when it is not in use, thereby it reduces electricity usage.
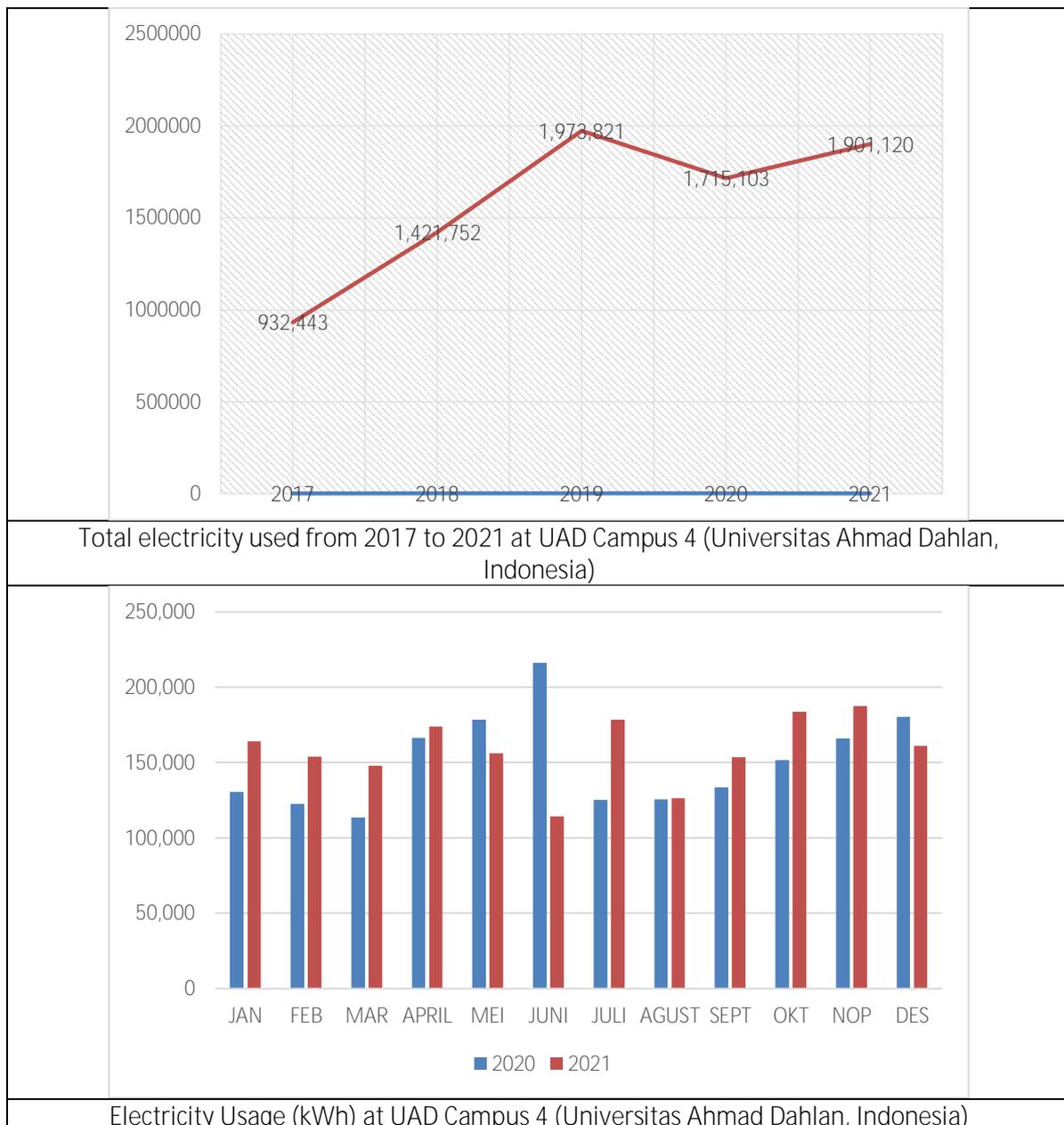
Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan
Country   :   Indonesia
Web Address :   https://uad.ac.id/en/

[2] Energy and Climate Change (EC)

[2.5] Renewable Energy Sources in Campus

Solar Panel Unit – Laboratorial Building (Universitas Ahmad Dahlan, Indonesia)

Dr. Zahrul Mufrodi, S.T., M.T. " Menyulap Sampah Plastik Menjadi Bahan Bakar Minyak"

Biomass implementation (Universitas Ahmad Dahlan, Indonesia)

Description:

The solar panel is installed on the roof-top of the Laboratory Building, 4th Campus UAD. This solar panel produces 2.6 Kwp of power. 1Kwp generates electricity for 8 hours from 8 a.m. to 4 p.m. So, the total is approximately 3.5 (4) kWh with the intensity of sunlight in Yogyakarta. Based on that, the electricity consumption from PLN is reduced by 3.5 kWh per day or equivalent to IDR 5,000 (PLN electricity tariff is IDR 1,400/kWh). It means the electricity budget reduced in one month is IDR 150,000.

While from biomass management that processes an organic waste into fuel oil, UAD yields 2.5 kW for every 20 kg of an organic waste.

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan
Country   :   Indonesia
Web Address   :   https://uad.ac.id/en/

[2] Energy and Climate Change (EC)

[2.6] Electricity Usage per Year (in Kilowatt hour)

Total electricity used from 2017 to 2021 at UAD Campus 4 (Universitas Ahmad Dahlan, Indonesia)

Electricity Usage (kWh) at UAD Campus 4 (Universitas Ahmad Dahlan, Indonesia)

Description:

The total electricity usage at Campus 4 UAD in 2020 was 1,715,103 kWh, then slightly increased in 2021 and reached to 1,901,120 kWh. The use of electricity between 2017-2021 tended to increase due to the construction of new buildings in these locations, thus it required electrical support. Apart from construction, electricity was used for regular lighting, air conditioning, and laboratories.

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan
Country   :   Indonesia
Web Address   :   https://uad.ac.id/en/

[2] Energy and Climate Change (EC)

[2.8] Ratio of renewable energy production divided by total energy usage per year

Solar panel installed on the roof-top of laboratory building (Universitas Ahmad Dahlan, Yogyakarta, Indonesia)

Dr. Zahrul Mufrodi, S.T., M.T. " Menyulap Sampah Plastik Menjadi Bahan Bakar Minyak"

Biomass implementation (Universitas Ahmad Dahlan, Yogyakarta, Indonesia)

Description:

The renewable energy at UAD is gathered through 2 activities:

1) The solar panel is installed on the roof-top of the Laboratory Building, 4th Campus UAD. This solar panel produces 2.6 Kwp of power. 1 Kwp generates electricity for 8 hours from 8 a.m. to 4 p.m. So, the total is approximately 3.5 (4) kWh with the intensity of sunlight in Yogyakarta.
2) Biomass management of UAD has processed an organic waste into fuel oil. The production capacity of this tool is 2.5 kW for every 20 kg of an organic waste.

No	Renewable Energy	Production (in kWh)/per year
1	Biomass	1.260 kW
2	Solar panel	936 kWp
	Total	2.196 kW

Efficiency = 2.196 / 1.901.120 (Electricity usage) = 0.11 %

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan
Country   :   Indonesia
Web Address   :   https://uad.ac.id/en/

[2] Energy and Climate Change (EC)

[2.9] Elements of Green Building Implementation as Reflected in All Construction and Renovation Policies

Ilustration Green Building Implementation in (Universitas Ahmad Dahlan, Yogyakarta, Indonesia)
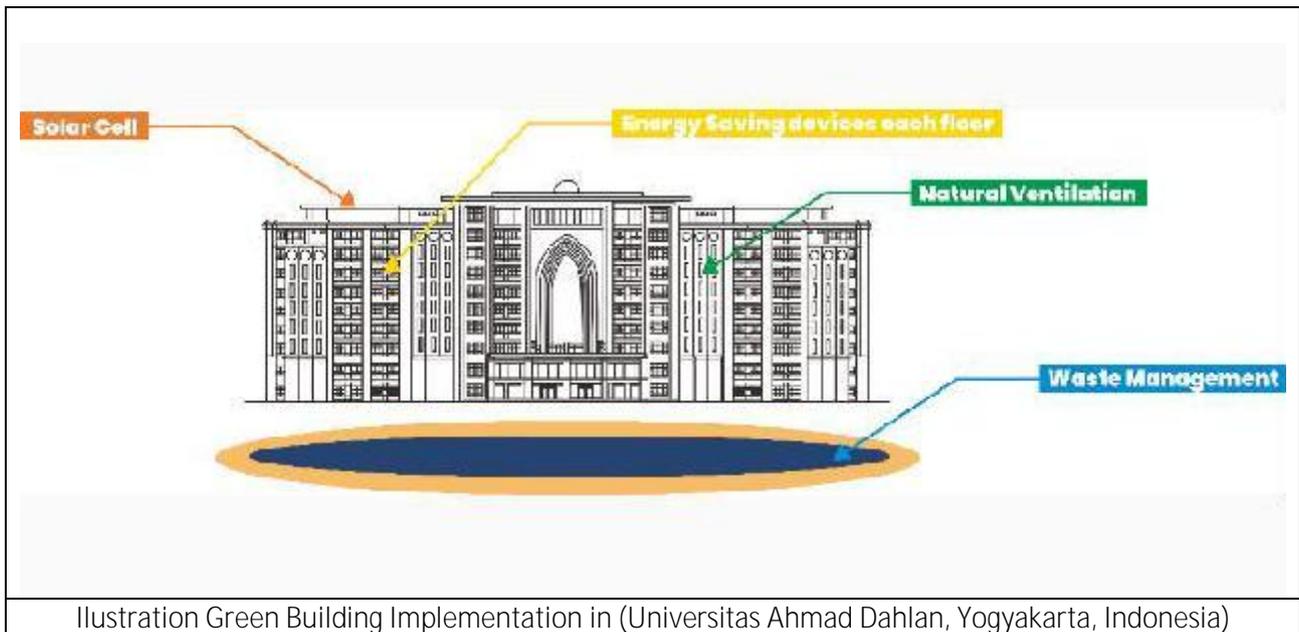
Description:

All buildings at UAD have energy-saving element, such as natural ventilation on every floor in each building. In addition, all facilities use energy-saving devices such as LED lights, fans, and AC inverters. A solar panel was installed to utilize renewable energy to convert solar power into electric power in one of the buildings. At UAD 4th campus, there are installations for processing waste, both organic and inorganic.

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan
Country   :   Indonesia
Web Address   :   https://uad.ac.id/en/

[2] Energy and Climate Change (EC)

[2.10] Greenhouse Gas Emission Reduction Program

Solar Panel Unit – Laboratorial Building (Universitas Ahmad Dahlan, Yogyakarta, Indonesia)

Dr. Zahrul Mufrodi, S.T., M.T. " Menyulap Sampah Plastik Menjadi Bahan Bakar Minyak"

Biomass implementation (Universitas Ahmad Dahlan, Yogyakarta, Indonesia)

Description:

The solar panel was installed on the roof-top of the Laboratory Building, 4th Campus UAD. This solar panel produces 2.6Kwp of power. 1Kwp generates electricity for 8 hours from 8 a.m. to 4 p.m. So, the total is approximately 3.5 kWh with the intensity of sunlight in Yogyakarta. Based on that, the electricity consumption from PLN is reduced by 3.5 kWh per day or equivalent to IDR 5,000 (PLN electricity tariff is IDR 1,400/kWh). It means that the electricity budget reduced in one month is IDR 150,000 or equal to IDR 1.800.000 per year.

Biomass management implemented in UAD is to convert inorganic waste into fuel oil that can be used for energy-saving purposes. The production scale of this unit is every 20kg of inorganic waste will produce 2.5 kW. Thus, in 1 year, the amount of energy produced is 975 kW or equivalent to IDR 1.365.000.

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan
Country   :   Indonesia
Web Address :   https://uad.ac.id/en/

[2] Energy and Climate Change (EC)

[2.11] Please Provide The Total Carbon Footprint (CO_2 Emission in The Last 12 Months, in Metric Tons)

<table>
<tr><td colspan="1">Option 2: Recommended by UI GreenMetric</td></tr>
</table>

CO_2 (electricity)

$$= \frac{\frac{(\quad)}{1000}}{} \times 0,84$$

$$= \frac{1,901,120}{1000} \times 0,84$$

$$= 1,596.9 \text{ metric tons}$$

CO_2 (bus)

$$= \frac{\frac{\times \qquad \times}{100} \qquad \frac{(\quad) \times 240}{}}{} \times 0,01$$

$$= \frac{0 \times 240}{100} \times 0,01$$

$$= 0 \text{ metric tons}$$

CO_2 (cars)

$$= \frac{\frac{\times 2 \times}{100} \qquad \frac{(\quad) \times 240}{}}{} \times 0,02$$

$$= \frac{114 \times 2 \times 0,5 \times 240}{100} \times 0,02$$

$$= 5.4 \text{ metric tons}$$

CO_2 (motorcycle)

$$= \frac{\frac{\times 2 \times}{100} \qquad \frac{(\quad) \times 240}{}}{} \times 0,01$$

$$= \frac{1.230 \times 2 \times 0.5 \times 240}{100} \times 0,01$$

$$= 29.6 \text{ metric tons}$$

CO_2 (total)

$\qquad = 1,596.9 + 0 + 5.4 + 29.5$

$\qquad = 50,869 \text{ metric tons}$

Carbon footprint in 2021 = 50,869 metric tons

<table>
<tr><td>Total Carbon Footprint (UI GreenMetric)</td></tr>
</table>

Description:

The carbon footprint produced on campus 4 of UAD was 50,869 metric tons. UAD tried to limit the number of vehicles entering the campus with some strategies. However, it was not possible to be implemented completely at one time but in stages. Currently, the footprint carbon reduction regulation is on the stage of limited implementation.

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan
Country   :   Indonesia
Web Address   :   https://uad.ac.id/en/

[2] Energy and Climate Change (EC)

[2.13] Number of Innovative Program(s) in Energy and Climate Change
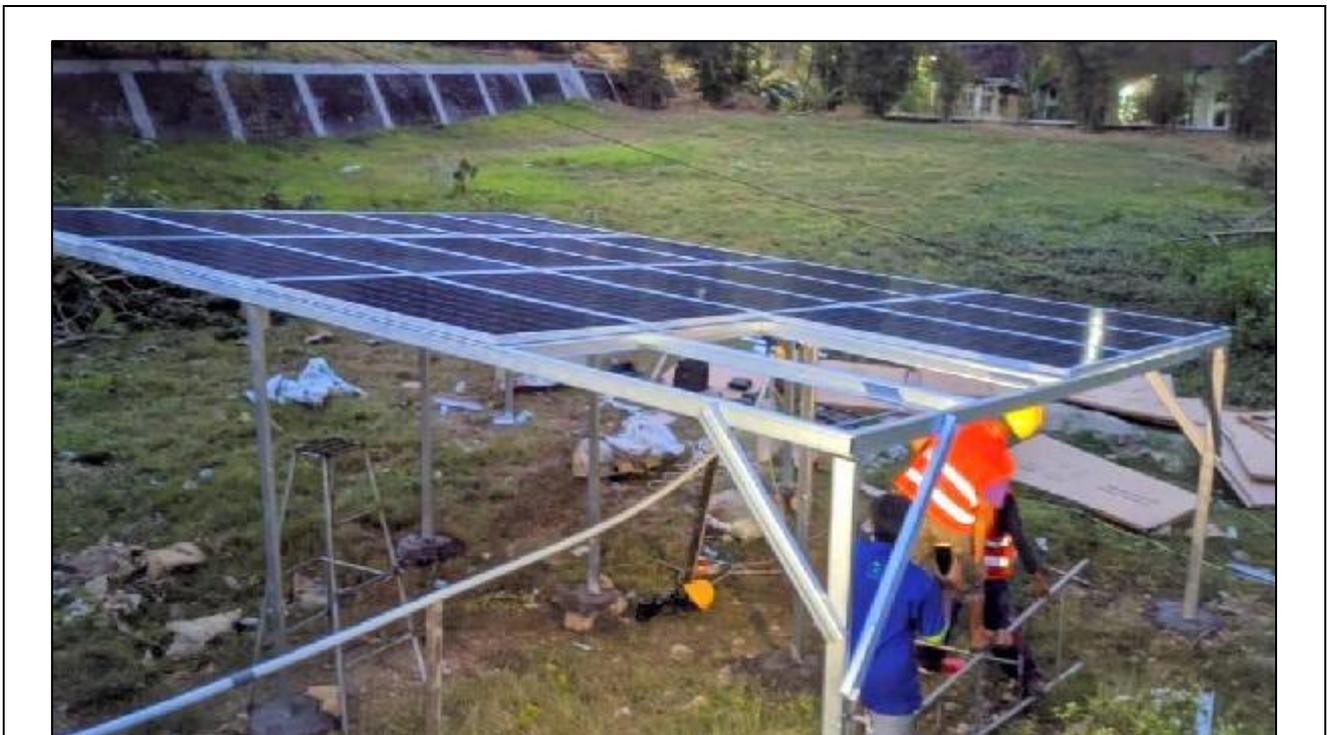
Mobil Listrik UAD 'Al Qorni' Raih Juara Umum II di FESC IIMS 2022

13/04/2022 / by Ard

Ahmad Dahlan Electric Vehicle Generasi 1 (ADEV 01), mobil listrik Universitas Ahmad Dahlan (UAD) Al Qorni Automotive Electrical (Foto: Istimewa)

Link:
https://news.uad.ac.id/mobil-listrik-uad-al-qorni-raih-juara-umum-ii-di-fesc-iims-2022/
https://lldikti5.kemdikbud.go.id/home/detailpost/adev-01-monalisa-mobil-listrik-kebanggaan-uad

https://lldikti5.kemdikbud.go.id/home/detailpost/dosen-uad-ubah-sampah-jadi-bahan-bakar-minyak
https://jogja.tribunnews.com/2017/11/20/luar-biasa-dosen-uad-ubah-sampah-plastik-jadi-bahan-bakar-minyak

Description:

UAD continues to innovate to reduce emissions on campus and to contribute broadly to society. Some of the innovations made are including

1. Through the community service program, UAD builds solar panels in targeted areas to help the community in term of efficiency of electricity consumption.
2. The development of electric cars, which have won several competitions, is an innovation that is currently being proudly done to reduce emissions from motorized vehicles.
3. Processing plastic waste into oil is also an innovation to utilize waste properly and to be able to become an alternative energy source.
4. Recycling used cooking oil into solid soap is also a form of reducing pollution that has an impact on climate change and provides economic benefits to the community.
5. The development of electric tricycles is an innovation in collaboration with the Yogyakarta City government. This innovation is superior because the City of Yogyakarta has a characteristic of a City of Tourism with tricycles as tourist transportation.

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan
Country   :   Indonesia
Web Address   :   https://uad.ac.id/en/

[2] Energy and Climate Change (EC)

[2.14] Impactful University Program(s) on Climate Change

Impactful University Program (Universitas Ahmad Dahlan, Indonesia)
Biogas Reactor given to Ngaliyan Communitty, KulonProgo

Impactful University Program (Universitas Ahmad Dahlan, Indonesia)
Solar cell-powered automatic water pump technology in Wareng Village Gunungkidul

SIMONKORI (Sistem Monitoring, Kontrol & Irigasi)

Solar panel installed in Serut village, Gunungkidul

Description:

UAD develops various innovations to save energy to reduce CO2 emissions. Some of these innovations have been distributed to the community, including

1. The Faculty of Industrial Technology (UAD) builds a Biogas Reactor in Ngaliyan Hamlet, Ngangosari Village, Samigaluh District, Kulonprogo to support the processing of meat and milk produced by Etawa goats to be used as plant fertilizer media. News link: News Link: https://lppm.uad.ac.id/tim-semesta-uad-ciptakan-energi-terbarukan-pengolahan-limbah-biogas-ternak-menjadi-energi-alternatif-dan-sumber-listrik-di-era-pandemi-bagi-masyarakat-desa-ngargosari-samigaluh-kulon-progo/

2. This implemented solar cell-powered automatic water pump is integrated with water reservoirs for "empon-empon" cultivation in the area. Thus, the empon-empon farmer saves energy, and irrigation is well maintained.
3. SIMONKORI (Monitoring, Control & Irrigation System) has been used by farmers in several areas. This system is planned to be adopted by the Malaysian industry. News link: News Link: http://warta.bimawa.uad.ac.id/aplikasi-simonkori-solusi-cerdas-pertanian/

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan
Country   :   Indonesia
Web Address   :   uad.ac.id

[3] Waste (WS)

[3.1] Recycling Program for University Waste

Plastic Waste Processing Laboratory
(Universitas Ahmad Dahlan, Indonesia)

Campus Garbage Trash
(Universitas Ahmad Dahlan, Indonesia)

Sewage Disposal Recycle Program
(Universitas Ahmad Dahlan, Indonesia)

Compost Fertilizer Making
(Universitas Ahmad Dahlan, Indonesia)

| Ecobrick from Inorganic Waste (Universitas Ahmad Dahlan, Indonesia) | GCC Activities Care for Waste (Universitas Ahmad Dahlan, Indonesia) |

Ahmad Dahlan University has implemented a waste recycling program including:
1. Establishment of a center of excellent green economy as a downstream waste management research by establishing a plastic waste processing laboratory in Murtigading, Sanden, Bantul on June 2, 2022
2. Processing campus organic waste into compost
3. Sewage disposal recycling program
4. Processing inorganic waste by sorting waste as a GCC (Green Campus Community) activity

Additional evidence link:

Profile of Ahmad Dahlan University Green Campus
https://youtu.be/8piaoDPfuEI

Plastic waste processing laboratory in Murtigading, Sanden, Bantul
https://www.krjogja.com/berita-lokal/read/234262/wakil-rektor-uad-bupati-bantul-resmikan-laboratorium-sampah-di-sanden

GCC (Green Campus Community) activity
https://jogjapolitan.harianjogja.com/read/2022/07/24/510/1107007/green-campus-community-uad-inisiasi-pengelolaan-e-waste-di-kampus

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan
Country   :   Indonesia
Web Address   :   uad.ac.id

[3] Waste (WS)

[3.2] Program to Reduce the Use of Paper and Plastic on Campus

Giving Tumbler (Universitas Ahmad Dahlan, Indonesia)	Giving Reuseable Bag (Universitas Ahmad Dahlan, Indonesia)
Information For Self-Upload Final Project Report (Universitas Ahmad Dahlan, Indonesia)	Invitation Meeting By Email (Universitas Ahmad Dahlan, Indonesia)
Plastic Waste Processing Laboratory	Trash Sort

(Universitas Ahmad Dahlan, Indonesia)	(Universitas Ahmad Dahlan, Indonesia)
MoU with PT Kibar Jaya (Universitas Ahmad Dahlan, Indonesia)	Seminar On Waste Management (Universitas Ahmad Dahlan, Indonesia)
P2K Invites Waste Care (Universitas Ahmad Dahlan, Indonesia)	GCC Sorts Garbage at P2K Events (Universitas Ahmad Dahlan, Indonesia)
Appeal to Reduce Plastic Use (Universitas Ahmad Dahlan, Indonesia)	Paper Saving Appeal (Universitas Ahmad Dahlan, Indonesia)

Ahmad Dahlan University has implemented a waste recycling program including:
1. Ahmad Dahlan University giving tumblers to all campus community to reduce mineral bottle
2. Ahmad Dahlan University giving reusable plastic bags
3. Students upload the final project report, research report, and practical report to e-print.uad.ac.id not a hard copy
4. Invitation meeting by email and google calendar

5. Build a plastic waste processing laboratory
6. Provide sorting trash bins both inside and outside the campus
7. Cooperate with external parties, namely CV Kibar Jaya in the management of plastic and paper waste
8. Hold a seminar on waste management
9. P2K invites Young Dahlan to Care for Garbage
10. The GCC program cares about waste, sorting waste and donating electronic waste
11. Appeal not to use plastic and be wise in using paper
12. Waste prevention and management policies

Pasal 4
Pencegahan Limbah

1. Pencegahan limbah ditujukan untuk mengurangi jumlah limbah seminimal mungkin.
2. Kegiatan yang menghasilkan dokumen dilingkungan UAD diarahkan paperless
3. Pengiriman dokumen antar unit di UAD diutamakan menggunakan surat elektronik
4. Pencetakan dokumen yang masih bersifat draft dicetak bolak-balik.
5. Penggunaan plastik sekali pakai sedapat mungkin dikurangi dengan beralih ke plastik biodegradable atau bahan yang dapat digunakan kembali (reuseable)

Pasal 5
Pengelolaan Limbah

1. Pengelolaan limbah ditujukan untuk mengurangi dampak limbah terhadap lingkungan
2. Limbah kertas dan plastik diutamakan didaur ulang
3. UAD melakukan pemilahan sampah meliputi limbah organik, anorganik dan Bahan Berbahaya dan Beracun (B3)
4. Pengelolaan limbah dapat dilakukan secara mandiri maupun kerjasama dengan pihak yang ditunjuk.

Additional evidence link:

Profile of Ahmad Dahlan University Green Campus
https://youtu.be/8piaoDPfuEI

Plastic Waste Processing Laboratory
https://www.krjogja.com/berita-lokal/read/234262/wakil-rektor-uad-bupati-bantul-resmikan-laboratorium-sampah-di-sanden

P2K invites Young Dahlan to Care for Garbage
https://news.uad.ac.id/p2k-uad-ajak-dahlan-muda-ramah-lingkungan/

Paper saving posters
https://www.instagram.com/p/Cjy-YlVPgI7/?igshid=YmMyMTA2M2Y=

Calling for reducing plastic waste poters
https://www.instagram.com/p/Cjy-Z7evfH7/?igshid=YmMyMTA2M2Y=

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan
Country   :   Indonesia
Web Address   :   uad.ac.id

[3] Waste (WS)

[3.3] Organic Waste Treatment

Waste Management MoU with CV Kibar Jaya (Universitas Ahmad Dahlan, Indonesia)	Composting Training on April 2, 2021 (Universitas Ahmad Dahlan, Indonesia)

Organic Waste Treatment
(Universitas Ahmad Dahlan, Indonesia)

Sources of organic waste at Ahmad Dahlan University are canteens and dry leaves. Organic waste management is managed by CV. Kibar Jaya through a contract agreement. Ahmad Dahlan University conducted a composting training on April 2, 2021, continuing with organic waste treatment from the campus park being processed into compost, while the canteen waste was handed over to CV. Kibar Jaya. 55% of the organic waste at Ahmad Dahlan University is processed into compost, and 45% is processed by CV Kibar Jaya.

Additional evidence link (i.e., for videos, more images, or other files that are not included in this file):

Profile of Ahmad Dahlan University Green Campus
https://youtu.be/8piaoDPfuEI

Be Part of Solution Sampah Posters
https://www.instagram.com/p/CNSqyw4M6ZN/?igshid=YmMyMTA2M2Y=

Compost training 2021
https://www.instagram.com/p/CNd4Py4MTJd/?igshid=YmMyMTA2M2Y=

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan
Country   :   Indonesia
Web Address   :   uad.ac.id

[3] Waste (WS)

[3.4] Inorganic Waste Treatment

MoU with CV. Kibar Jaya For Treat Waste (Universitas Ahmad Dahlan, Indonesia)	Inorganic Waste Collecting And Temporary Saving (Universitas Ahmad Dahlan, Indonesia)
The waste bank for making ecobricks (Universitas Ahmad Dahlan, Indonesia)	An Electronic Waste Sodaqoh Program (Universitas Ahmad Dahlan, Indonesia)

Processing Plastic to Fuel
(Universitas Ahmad Dahlan, Indonesia)

Inorganic waste processing at Universitas Ahmad Dahlan
1. The processing of non-organic waste in the Ahmad Dahlan University environment is managed by the UAD Infrastructure Bureau and processed by CV. Kibar Jaya.
2. Inorganic waste before being transported by CV. Kibar Jaya, collected and stored in the garbage sorting house
3. Some of the non-organic waste (plastic) is managed by the campus and the waste bank for making ecobricks
4. Green Community Campus (GCC) establishes an electronic waste sodaqoh program
5. Plastic Processing into Fuel in the laboratory

Additional evidence link (i.e., for videos, more images, or other files that are not included in this file):

Profile of Ahmad Dahlan University Green Campus
https://youtu.be/8piaoDPfuEI

Paper saving posters
https://www.instagram.com/p/Cjy-YIVPgI7/?igshid=YmMyMTA2M2Y=

Calling for reducing plastic waste poters
https://www.instagram.com/p/Cjy-Z7evfH7/?igshid=YmMyMTA2M2Y=

GCC initiates Electronic waste management (e-waste management)
https://jogjapolitan.harianjogja.com/read/2022/07/24/510/1107007/green-campus-community-uad-inisiasi-pengelolaan-e-waste-di-kampus

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan
Country   :   Indonesia
Web Address   :   uad.ac.id

[3] Waste (WS)

[3.5] Toxic Waste Treatment

Toxic Waste Collecting (Universitas Ahmad Dahlan, Indonesia)	Toxic Waste Collecting And Saving Before Picked Up By PT. Tenang Jaya Sejahtera (Universitas Ahmad Dahlan, Indonesia)
MoU PT. Tenang Jaya and Universitas Ahmad Dahlan For Direct Hazardous Waste (Universitas Ahmad Dahlan, Indonesia)	Certificate ISO 14001-2015 PT. Tenang Jaya (Universitas Ahmad Dahlan, Indonesia)

Management of (solid/liquid/gaseous) hazardous waste Universitas Ahmad Dahlan:
1. Hazardous waste is collected in a certain container, after being fully stored in a certain room, which is collected periodically by PT Tenang Jaya Sejahtera

2. The results of the collection of hazardous waste are placed in a certain room separate from the laboratory room until it is collected by PT Tenang Jaya Sejahtera and processed according to the standards set by the government.
3. Management of B3 waste (solid/liquid/gas) is handed over to PT. Tenang Jaya Sejahtera (Waste Technical Company) as a certified B3 waste processing company.
4. PT. Tenang Jaya Sejahtera is an ISO 14001-2015 certified B3 waste management institution.

Additional evidence link:

Profile of Ahmad Dahlan University Green Campus
https://youtu.be/8piaoDPfuEI

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan
Country   :   Indonesia
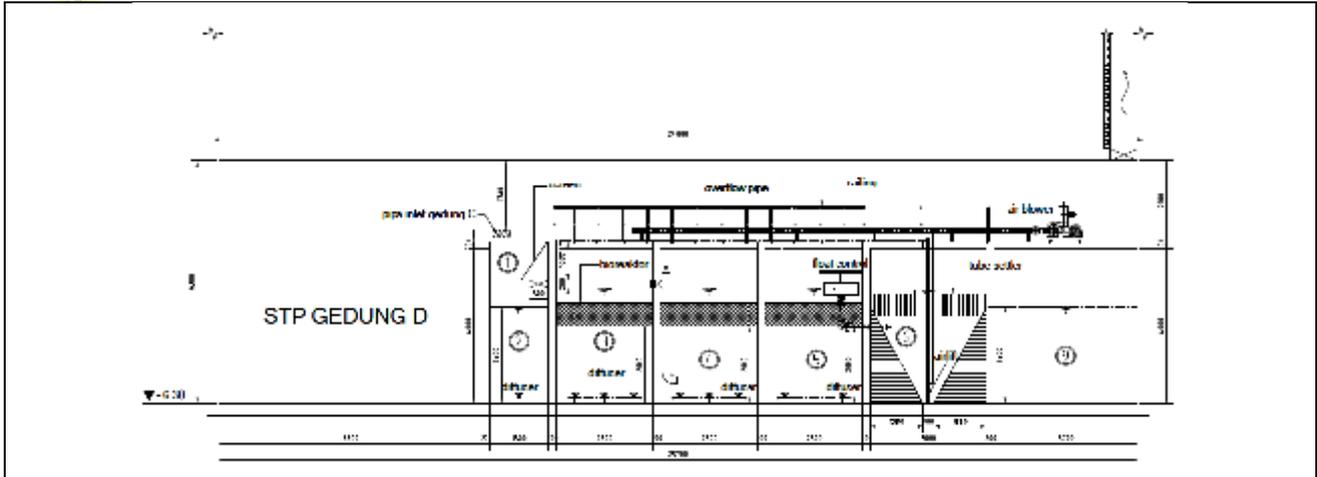Web Address   :   uad.ac.id

[3] Waste (WS)

[3.6] Sewage Disposal

Sewage Disposal
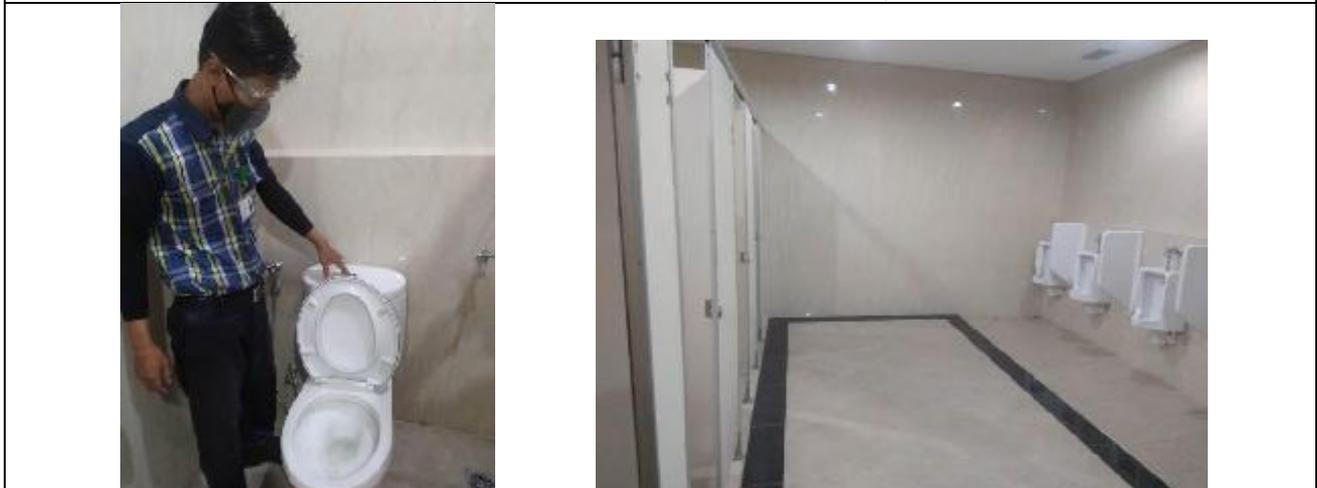(Universitas Ahmad Dahlan, Indonesia)
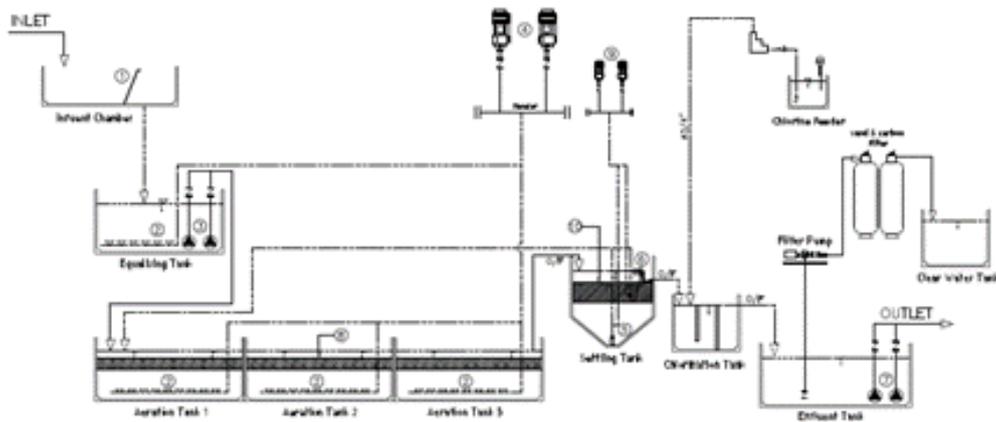
. Waste Treatment System
(Universitas Ahmad Dahlan, Indonesia)

Sewage Treatment Program
(Universitas Ahmad Dahlan, Indonesia)

Conservation Waste Water Faucet For Watering The Garden
(Universitas Ahmad Dahlan, Indonesia)

Waste Water Conservation Results Are Used To Flush
(Ahmad Dahlan University, Indonesia)

Waste water treatment at Ahmad Dahlan University is managed by the Infrastructure Bureau (Bureau of Facilities and Infrastructure) through an upcycling system. BSP has an obligation to clean and maintain drains (and lateral drains) to ensure that these areas are effectively drained. in addition BSP also makes provisions for the emptying of these sewers, usually through sewage treatment works, or if necessary, through direct discharge into the watercourse.

Additional evidence link:

Profile of Ahmad Dahlan University Green Campus
https://youtu.be/8piaoDPfuEI

Dirty and clean water system in the STP (Sewage Treatment Plan)
PL-03 STP system
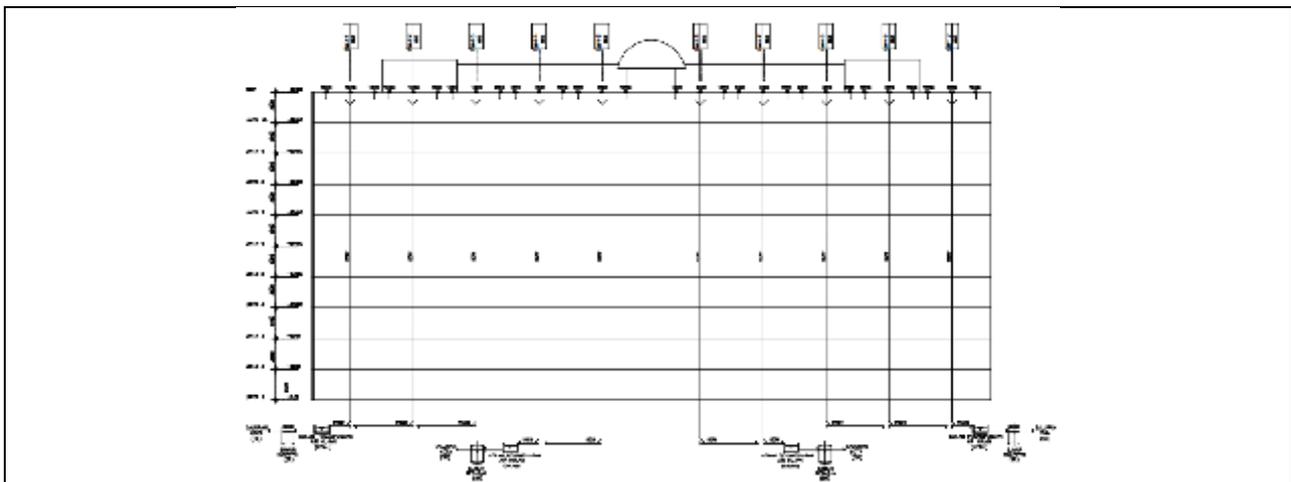
Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan
Country   :   Indonesia
Web Address   :   uad.ac.id

[4] Water (WR)

[4.1] Water Conservation Program Implementation

Water Conservation - Rain Water Collection
(Universitas Ahmad Dahlan, Indonesia)

Water Conservation – Pool of campus
(Universitas Ahmad Dahlan, Indonesia)

Water Conservation – Pedestrian Paths And Parks
Covered With Blocks
(Universitas Ahmad Dahlan, Indonesia)

The rest of the need for clean water is met by deep water wells. The campus of Universitas Ahmad Dahlan has water conservation programs in the form of:

1. Rainwater is collected from the top floor of the building. There are 10 pieces of Rainwater (RW @ 150) each of which accommodates 3 Roof Water Channels (RD @ 100). Every 2 to 3 RWs are accommodated in the Rainwater Storage Pool (RSP) which is located below the pond. The function of this Rainwater Storage Pool is as a water reserve and if the RSP is full then the water is pumped into the pool.

2. A pool is in front of the main building with a length of 68.5 m, a width of 23.7 m, and a deep 1.5 m. This pool functions as a reservoir for rainwater runoff from the streets and campus yards. This pool can accommodate 2000 m3 of rainwater runoff.
3. Most of the area outside the building is covered with blocks and the rest is planted with grass.
4. Rainwater conservation = wells capacity : high volume of rainwater.

Wells Capacity	Rainwater Volume	Conservation	Percentage
214 m3	169 m3	169	100

Additional evidence link:

Profile of Ahmad Dahlan University Green Campus
https://youtu.be/8piaoDPfuEI

Rain Water Collection
PL-101 STP system

Template for Evidence(s)
UI GreenMetric Questionnaire

University : Universitas Ahmad Dahlan
Country : Indonesia
Web Address : uad.ac.id

[4] Water (WR)

[4.2] Water Recycling Program Implementation

The Example of Water Recycling in STP
(Universitas Ahmad Dahlan, Indonesia)

The Example of Water Recycling for Garden Sprinklers
(Universitas Ahmad Dahlan, Indonesia)

The Example of Water Recycling for Toilet Flushes
(Universitas Ahmad Dahlan, Indonesia)

Water Recycling Program Implementation at Universitas Ahmad Dahlan:
1. The current condition of Universitas Ahmad Dahlan has its formal policy for implementation water recycling as formally written under the following decree.

<div align="center">

Pasal 6

Pengelolaan air

</div>

Pengelolaan sumberdaya air didasarkan pada kebutuhan dan kemampuan kampus dengan:

a. Melakukan efisiensi penggunaan air bersih;
b. Membangun sumur resapan, biopori dan struktur pemanen air hujan yang lain;
c. Menggunakan air hasil pengolahan untuk mengurangi penggunaan air bersih; dan/ atau
d. Memiliki tanki air.

2. Water recycling program
    a. The rainwater Storage Pool (RSP) with a volume of 60 x 15 x 1.8 = 1,620 m^3 is a rainwater overflowing pool from the roof of the building. the benefits of water in the RSP are as a backup for as a firefighter and to fill pond water.
    b. Wastewater from toilets and bathrooms is channeled into the STP building to be processed into reusable water. The stages of the process in the STP building start from filtering wastewater, settling, purifying water, collecting water from conservation, and pumping water from conservation to water reservoirs on the roof of the building. the capacity of the STP building is 9.8 m^2.
    c. The recycled water is used as garden sprinklers and toilet flushes. The capacity of the dirty water recycling process is 9.8 m3 and is used as wide as possible for garden sprinklers and toilet flushes. Water Recycling Program Implementation Conservation of dirty water = SWT capacity : waste water volume.

SWT Capacity	Wastewater Volume	Conservation	Percentage
9,8 m3	0,472 m3 x 20 waste water pipeline	9,44	100

Note:
SWT = Sewage Water Treatment
STP = Sewage Treatment Plant
SWT capacity = 9.8 m3

Additional evidence link:

Profile of Ahmad Dahlan University Green Campus
https://youtu.be/8piaoDPfuEI

Dirty and clean water system in the STP (Sewage Treatment Plan)
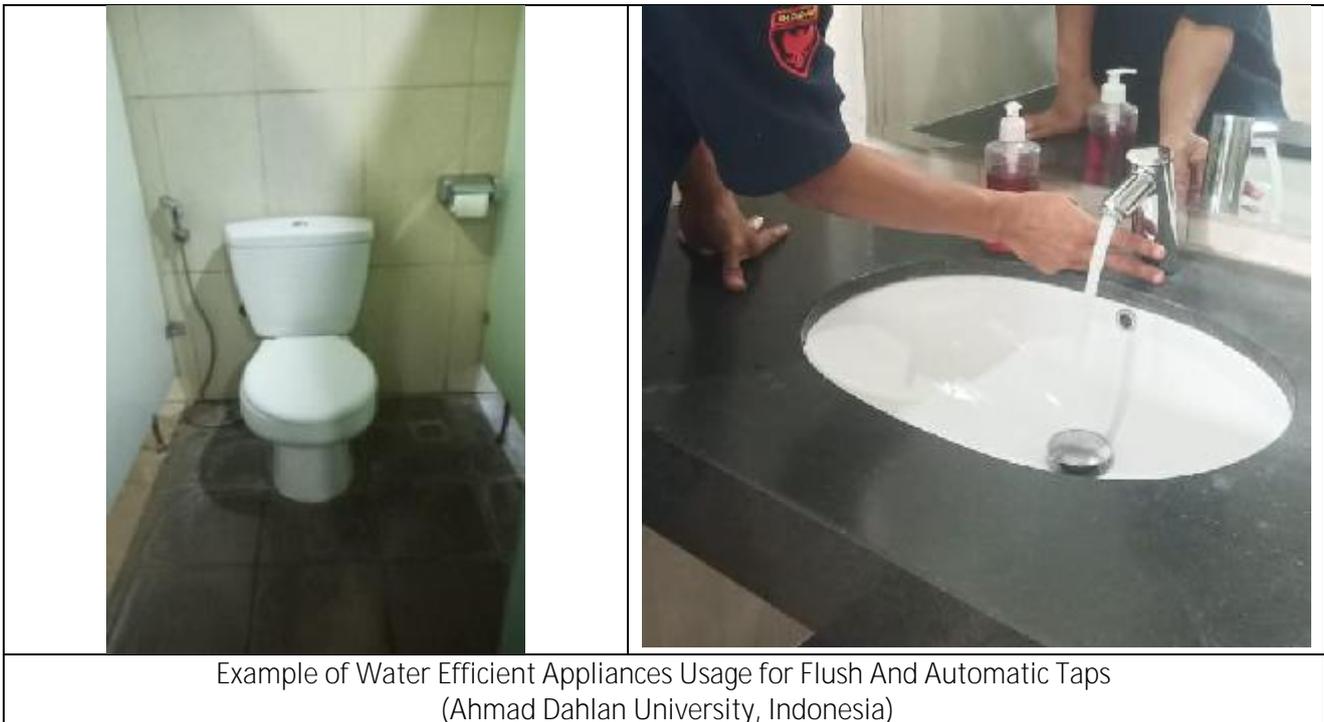PL-103 STP system

Template for Evidence(s)
UI GreenMetric Questionnaire

University : Universitas Ahmad Dahlan
Country : Indonesia
Web Address : uad.ac.id

[4] Water (WR)

[4.3] Water Efficient Appliances Usage (e.g. hand washing taps, toilet flush, etc.)

Example of Water Efficient Appliances Usage for Flush And Automatic Taps
(Ahmad Dahlan University, Indonesia)

Water Efficient Appliances Usage at Universitas Ahmad Dahlan:
1. The toilet flushing uses water that has been conserved from the Sewage Treatment Program (STP) building which is pumped into the water reservoir on the roof of the building and then flows over the entire floor using gravity to be used as a toilet flush.
2. Most bathrooms are installed with Automatic sink faucets that use sensors.

Appliance	Total Number	Total number water Efficient appliances	Percentage
Toilet	116	116	100%
Wastafel	24	5	20%
		Average Percentage	60%

Additional evidence link:

Profile of Ahmad Dahlan University Green Campus
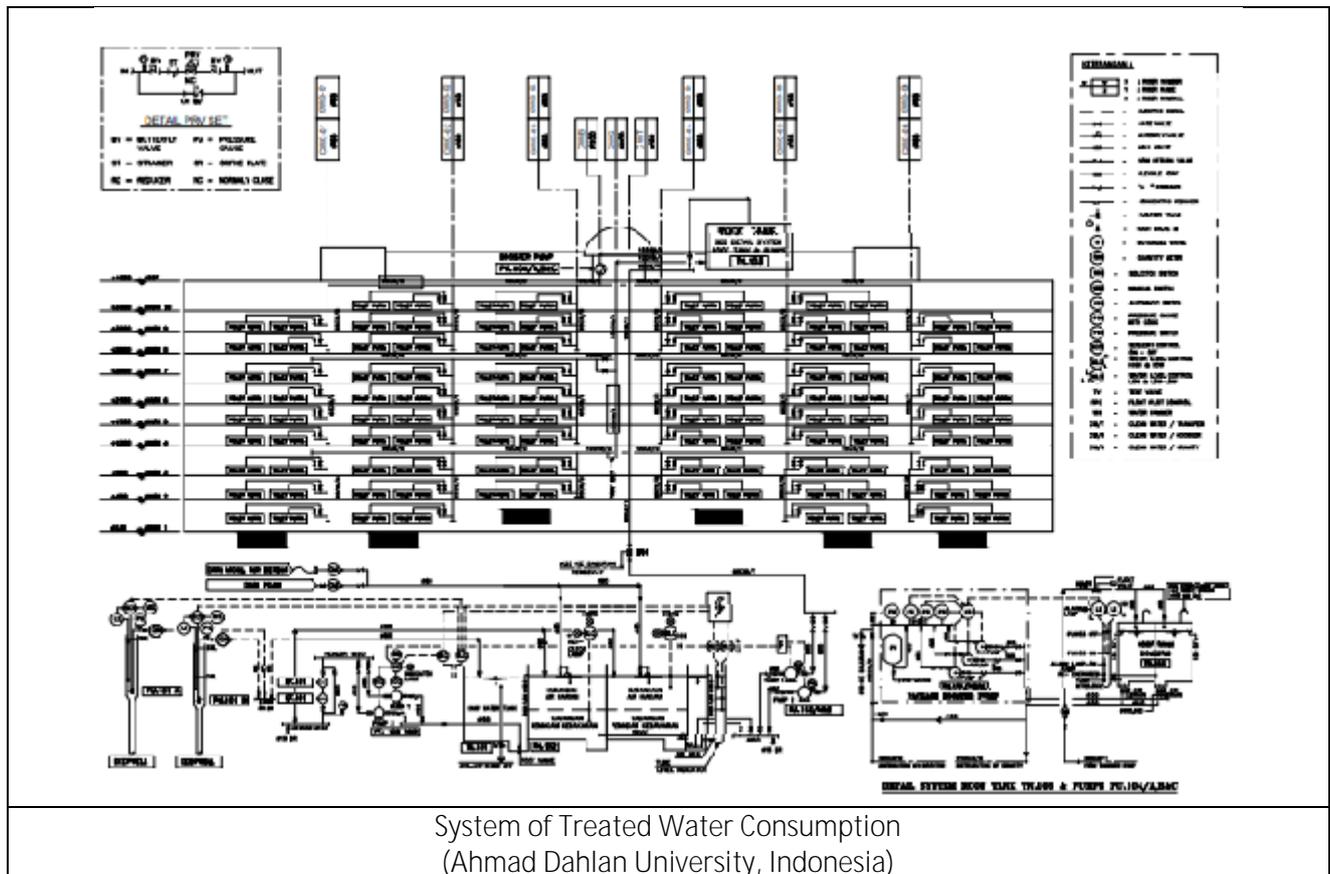https://youtu.be/8piaoDPfuEI

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan
Country   :   Indonesia
Web Address :   uad.ac.id

[4] Water (WR)

[4.4] Consumption of treated water

System of Treated Water Consumption
(Ahmad Dahlan University, Indonesia)

The results of water conservation in UAD come from STP with a capacity of 250 m3/day which has been able to meet 80% of daily clean water needs of 303 m3/day. 20% of clean water needs are taken from deep wells so that UAD is able to meet 80% of clean water needs from water conservation. Consumption of treated water is used for watering plants, washing cars, and flushing toilets.

Consumption	Jumlah	Kapasitas STP	Prosentace
STP building	0,492 m3 x 20 saluran	250 m3/hari	250 / 303
Siram tanaman	80 m3		= 0,825
Sanitasi	270 m3		

Additional evidence link:

Profile of Ahmad Dahlan University Green Campus
https://youtu.be/8piaoDPfuEI

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan
Country   :   Indonesia
Web Address   :   uad.ac.id

[4] Water (WR)

[4.5] Water pollution control in campus area

Water Quality Sampling And Monitoring Of Water Consumption
(Ahmad Dahlan University, Indonesia)

Universitas Ahmad Dahlan checks water quality in 3 buildings namely, the STP building, the medical building waste storage and the B3 waste storage facility for the laboratory building of campus 4 of UAD every 4 months. Waste water checking is carried out by the CDU Lab (environmental laboratory) periodically.

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan (UAD)
Country   :   Indonesia
Web Address   :   https://greencampus.uad.ac.id/

[5] Transportation (TR)

[5.4] The total number of vehicles (cars and motorcycles) divided by total campus'
population

No.	Vehicle	Total Number
1	Car managed by the university	26
2	Cars entering the university	88
3	Motorcycles entering the university	1230
	Total	1344

5.4 = 1344 / 1352= 0.99

Description:
(*Please describe the shuttle services on your campus. The following is an example of the description. You can describe more related items if needed.*)
Universitas Ahmad Dahlan manages cars, trucks, and buses. The car is used for leadership mobility, picking up guests, and lecturers' work visits. Trucks are used to move supporting facilities for lectures and activities. The buses are used for work visits outside the city. UAD does not provide shuttle services because UAD is located near the highway and traversed by public transportation, "Trans Jogja," managed by the Yogyakarta City Government. The working cooperation between UAD and the Yogyakarta city government is the construction of the Trans Jogja shuttle in front of the campus 4 of Universitas Ahmad Dahlan. In addition, all student activities can be carried out on campus 4 of UAD without transportation. Facilities and infrastructure for lectures, practicum, library, student lounge, lecturer room, student dormitory, canteen, and worship activities are available on campus 4 of UAD.

Shuttle Bus
The shuttle bus is located in front of the campus, easily accessible by anyone.

Additional evidence link (i.e., for videos, more images, or other files that are not included in this file):

https://www.youtube.com/watch?v=p4s2nQECZhM

Template for Evidence(s)
UI GreenMetric Questionnaire

University : Universitas Ahmad Dahlan
Country : Indonesia
Web Address : https:// greencampus.uad.ac.id/

[5] Transportation (TR)

[5.5] Shuttle Services

Trans Jogja shuttle Bus in front Campus 4 of Universitas Ahmad Dahlan
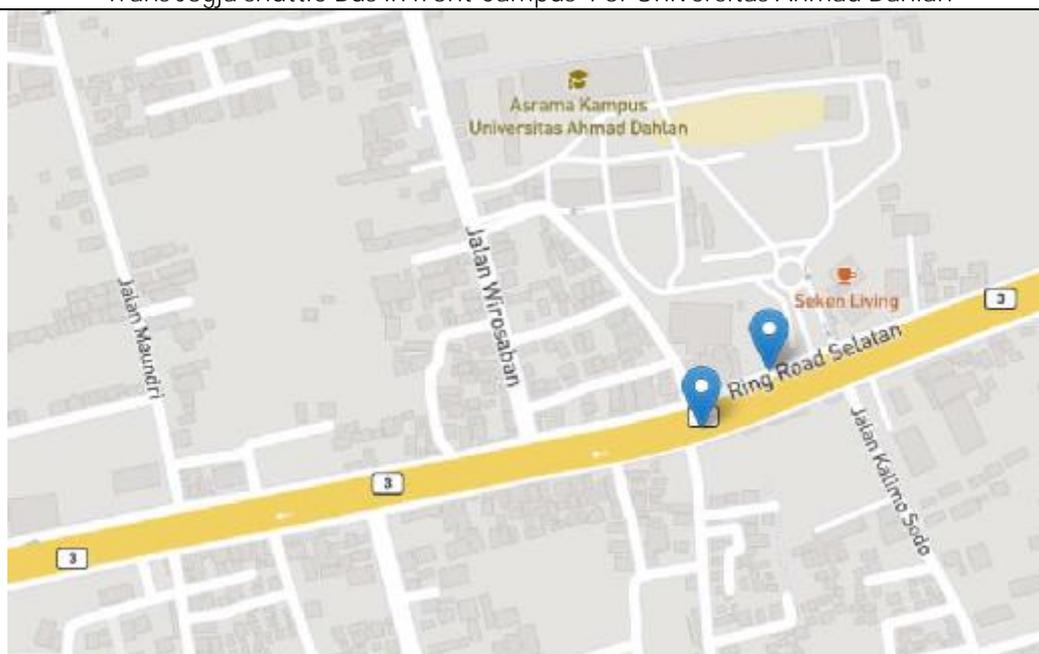
The example maps of Trans Jogja

Description:
(*Please describe the shuttle services on your campus. The following is an example of the description. You can describe more related items if needed.*)

The Campus 4 of UAD does not provide shuttle services as it is located near the highway and traversed by public transportation, "Trans Jogja," that is officially managed by the Yogyakarta City Government. The cooperation between UAD and the Yogyakarta city government is the construction of the Trans Jogja shuttle in front of the campus 4 of Universitas Ahmad Dahlan. Therefore, all student activities can be directed to campus 4 UAD without private transportation. Facilities and infrastructure for lectures, practicum activity, library, student lounge, lecturer room, student dormitory, canteen and worship activities are available on campus 4 of UAD.

Additional evidence link (i.e., for videos, more images, or other files that are not included in this file):
https://www.youtube.com/watch?v=p4s2nQECZhM
https://dishub.jogjaprov.go.id/trans-jogja
https://sillaj-dishub.jogjaprov.go.id/halte

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan
Country   :   Indonesia
Web Address   :   https://greencampus.uad.ac.id

[5] Transportation (TR)

[5.9] Zero Emission Vehicles (ZEV) Policy on Campus

The example of Campus' Bike and parking Area
(Universitas Ahmad Dahlan, Indonesia)

Electric pedicab
(Universitas Ahmad Dahlan, Indonesia)

The policy of limiting vehicle access and parking
areas (Universtias Ahmad Dahlan, Indonesia)

Al Qorni electric car
(Universitas Ahmad Dahlan, Indonesia)

Prototype Chem-E-Car
(Universitas Ahmad Dahlan, Indonesia)

Smart e-foldbike
(Universitas Ahmad Dahlan, Indonesia)

Description:
(*Please describe the Zero Emission Vehicles (ZEV) policy on your campus. The following is an example of the description. You can describe more related items if needed*.)

Universitas Ahmad Dahlan is cyclist and pedestrian-friendly as the cycle parking is available. UAD issued a policy limiting the use of vehicles and parking areas. In addition, UAD developed various Zero Emission Vehicles innovations, including the Smart e-FoldBike, Chem-E-Car, Al Qorni electric car, and Electric pedicab.

Additional evidence link (i.e., for videos, more images, or other files that are not included in this file):
https://youtu.be/brBFksx-vL4
https://youtu.be/GwOAgfNXCko
https://drive.google.com/file/d/1YprZFituKW4JcQcIPfHYrivcxJDa8qWQ/view?usp=sharing (profile Chem-E-Car)

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan
Country   :   Indonesia
Web Address   :   https://greencampus.uad.ac.id/

[5] Transportation (TR)

[5.13] Ratio of Parking Area to Total Campus Area

The Example of Ratio of Parking Area to Total Campus Area (Universitas Ahmad Dahlan, Indonesia)

The parking area for motocycle
(Universitas Ahmad Dahlan, Indonesia)

The parking area for bicycle
(Universitas Ahmad Dahlan, Indonesia)

Description:
(*Please describe the ratio of parking area to total campus area. The following is an example of the description. You can describe more related items if needed.*)

Total main campus area: 81832 m^2
Total parking area = 4204.02m^2 (1562 spaces*12.5m^2 per space).

Ratio = 5.20

Additional evidence link (i.e., for videos, more images, or other files that are not included in this file):

Template for Evidence(s)
UI GreenMetric Questionnaire

University : Universitas Ahmad Dahlan
Country : Indonesia
Web Address : https://greencampus.uad.ac.id/

[5] Transportation (TR)

[5.14] Program to limit or decrease the parking area on campus for the last 3 years
(from 2018 to 2020)

The legal policy of limiting vehicle access and parking areas
(Universitas Ahmad Dahlan, Indonesia)

The development of Smart e-foldbike to support reducing the use of motorized vehicles on campus.
(Universitas Ahmad Dahlan, Indonesia)

The electric pedicab
(Universitas Ahmad Dahlan, Indonesia)

The online transportations availability around campus
(Universitas Ahmad Dahlan, Indonesia)

Description:
(*Please describe the transportation initiatives to decrease private vehicles on campus and specify detail of data, e.g. campus bus, free bicycle, etc. The following is an example of the description. You can describe more related items if needed.*)

UAD strives to decrease the use of vehicles through policies and the development of electric bicycles and electric pedicabs. In addition, online transportations are also available around campus.

Additional evidence link (i.e., for videos, more images, or other files that are not included in this file):

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan
Country   :   Indonesia
Web Address :   https://greencampus.uad.ac.id/

[5] Transportation (TR)

[5.15] Number of Transportation Initiatives to Decrease Private Vehicles on Campus

The TransJogja that is managed by the Yogyakarta city government can easily be accessed from the front of the campus of UAD.
(Universitas Ahmad Dahlan, Indonesia)

The development of Smart e-foldbike to support reducing the use of motorized vehicles on campus.
(Universitas Ahmad Dahlan, Indonesia)

The electric pedicab
(Universitas Ahmad Dahlan, Indonesia)

Al Qorni electric car
(Universitas Ahmad Dahlan, Indonesia)

Description:
(*Please describe the transportation initiatives to decrease private vehicles on campus and specify detail of data, e.g. campus bus, free bicycle, etc. The following is an example of the description. You can describe more related items if needed.*)

UAD, in collaboration with the Yogyakarta city government, built the TransJogja shuttle in front of the main campus of Universitas Ahmad Dahlan. It proves their commitment to reduce the use of private vehicles, especially among students. UAD is also developing the Al-Qorni electric car, electric tricycles, and the "smart E-FoldBike" electric bicycle.
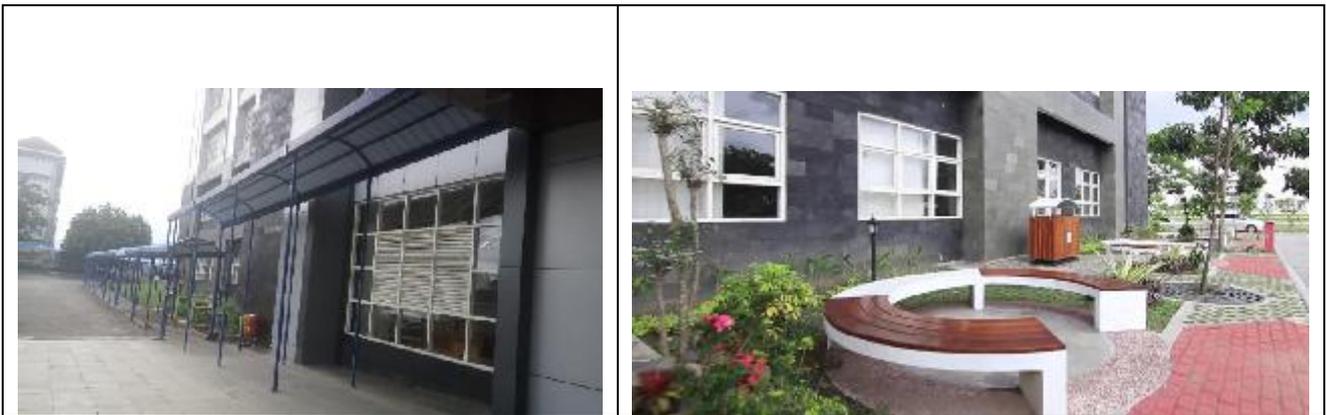
Additional evidence link (i.e., for videos, more images, or other files that are not included in this file):

Template for Evidence(s)
UI GreenMetric Questionnaire

University   :   Universitas Ahmad Dahlan
Country   :   Indonesia
Web Address   :   https://greencampus.uad.ac.id

[5] Transportation (TR)

[5.16] Pedestrian Path Policy on Campus

The pedestrian path around the campus (Universitas Ahmad Dahlan, Indonesia)

The disabled-friendly bridge for pedestrian between the main towers and the laboratory building (Universitas Ahmad Dahlan, Indonesia)

The disabled-friendly pedestrian path and facilities for disabled people (Universitas Ahmad Dahlan, Indonesia)

Description:
(*Please describe pedestrian path policy on your campus. The following is an example of the description. You can describe more related items if needed.*)

Pedestrian paths are available in the campus of Universitas Ahmad Dahlan. It is designed for safety and convenience, equipped with enough lighting, and separated for the road of vehicles. UAD also provides disabled-friendly features such as a pedestrian bridge that is disabled-friendly between the main towers and the laboratory building bridge, lift, and toilets.

Additional evidence link (i.e., for videos, more images, or other files that are not included in this file):

Template for Evidence(s)
UI GreenMetric Questionnaire

University   : Universitas Ahmad Dahlan
Country   : Indonesia
Web Address   : https://uad.ac.id

[6] Education and Research (ED)

[6.1] Number of Courses/Subjects Related to Sustainability Offered

No	Courses	Course Description/Keywords
1	Environmental education	This course examines the nature, content of environmental education in elementary schools by utilizing the environment as a learning resource in order to support environmental conservation and sustainable development.
2	Environmental Science	Environmental Science courses discuss the basic principles of the environment; environmental components, global and local environmental problems; sustainable development goals (SDGs), air pollution includes: indoor air pollution, outdoor air pollution; water pollution; soil pollution; environmental management, and case studies on environmental issues.
3	Ecotourism	The ecotourism course aims to equip students majoring in biology education to be able to interact with the outside world other than school. In addition, so that students are able to communicate well through oral or written and can contribute to improving the quality of society through studies on ecotourism.
4	Amdal	The AMDAL course studies sustainable development tools, environmental views with development, the scope of AMDAL, legal basis, ANDAL, UKL-UPL, RPL, RKL, SPPL, AMDAL documents, environmental permit processes, and AMDAL case studies.
5	Waste and Waste Treatment	This course studies the characteristics of types of waste, types of waste and their characteristics, the impact of waste and waste, B3 waste, B3 waste management, waste management, waste treatment, wastewater treatment, and waste water and waste treatment technology teknologi
6	Plant Ecology	This course is a course that contains the concept of ecology, studying the sampling method of biotic communities both plot and plotless
7	Electric Vehicle	Electric Vehicle is a course that discusses the technology that develops in green technology. This course discusses the history of conventional vehicle technology to the latest technology, namely electric vehicles. Electric vehicle technology has potential advantages compared to internal combustion engines, namely it does not produce exhaust gas emissions from motor vehicles.
8	Advanced Technology Automotive	Advance Technology Automotive discusses the latest automotive technology developments that can provide comfort, driving safety and engine performance efficiency so as to minimize environmental pollution.
9	Environmental Health Basics	The learning materials are related to the ecology of clean water supply, waste management of air pollution, and the link between pollution and disease incidence.

10	Environmental Quality Analysis	This lecture material is delivered with the aim of increasing students' awareness of the environment. The main subjects include environmental quality analysis of water, air and soil, as well as biomonitoring of environmental health.
11	Environmental Impact Analysis	This course contains material related to the importance of maintaining environmental aspects in developing a business and/or activity. The material presented is related to the relationship between amdal and environmental sustainability and also the steps of amdal.
12	Environmental Toxicology	This course material is related to how environmental risk agents enter the human body, what are the factors causing it and how to prevent it.
13	Environmental Health Risk Analysis	Environmental health risk analysis examines the linkage of agents that pose a risk to health and the environment. In addition, it also discusses how to estimate the impact that will arise in the future based on current environmental conditions.
14	Food and Beverage Sanitation Hygiene	This course discusses good food and beverage management in terms of the personal health of the handlers, environmental sanitation, and Hazard Analysis Critical Control Point (HACCP).
15	Sanitation Practice	Students who take the course will take part in the practice of sanitation field surveys, for example, Final Processing Sites (TPA), waste management sites, areas that care about processing waste or waste.
16	International Environmental Health Issues	This course discusses current developing issues related to global environmental health.
17	Sanitation of Public Places	Students are provided with knowledge about aspects related to sanitation (including aspects of waste management) in the environment in public places, the health impacts on not manage sanitation properly. In addition to theory, students also gain experience in surveying sanitation conditions in public places.
18	Residential and Building Health	Residential and building health discusses the health aspects that need to be considered in a settlement. A healthy house must of course be in accordance with the needs in supporting the health of its occupants, for example related to cleanliness, physical aspects of the house such as ventilation, lighting, waste and waste management, etc.
19	Environmental Policy and Management	Environmental Policy and Management (KML) is a course examining the policies of the central and local governments focusing on the environmental management. The development of the material includes sustainable development, strategic environmental studies, the relationship between community customs and environmental preservation, etc.
20	Waste and By-product Management Technology	This course contains of knowledge about environmental indicators, environmental control techniques

Description:
Below is a list of the percentage of sustainability courses compared to the total courses offered in each faculty. Sustainability covers all environmental, social and energy aspects, with keywords related to sustainability such as green, environment, sustainability, renewable energy, climate change, waste (Details can be seen in [University_Country_6_1 Evidence].

Total number of courses with sustainability embedded for courses running in 2021 = 144 courses

Additional evidence link (i.e., for videos, more images, or other files that are not included in this file):
https://docs.google.com/spreadsheets/d/1ar9SqpUPZslEtm5-OClQkZJV0GhOz5Sd/edit?usp=sharing&ouid=11099811702084037169&4&rtpof=true&sd=true
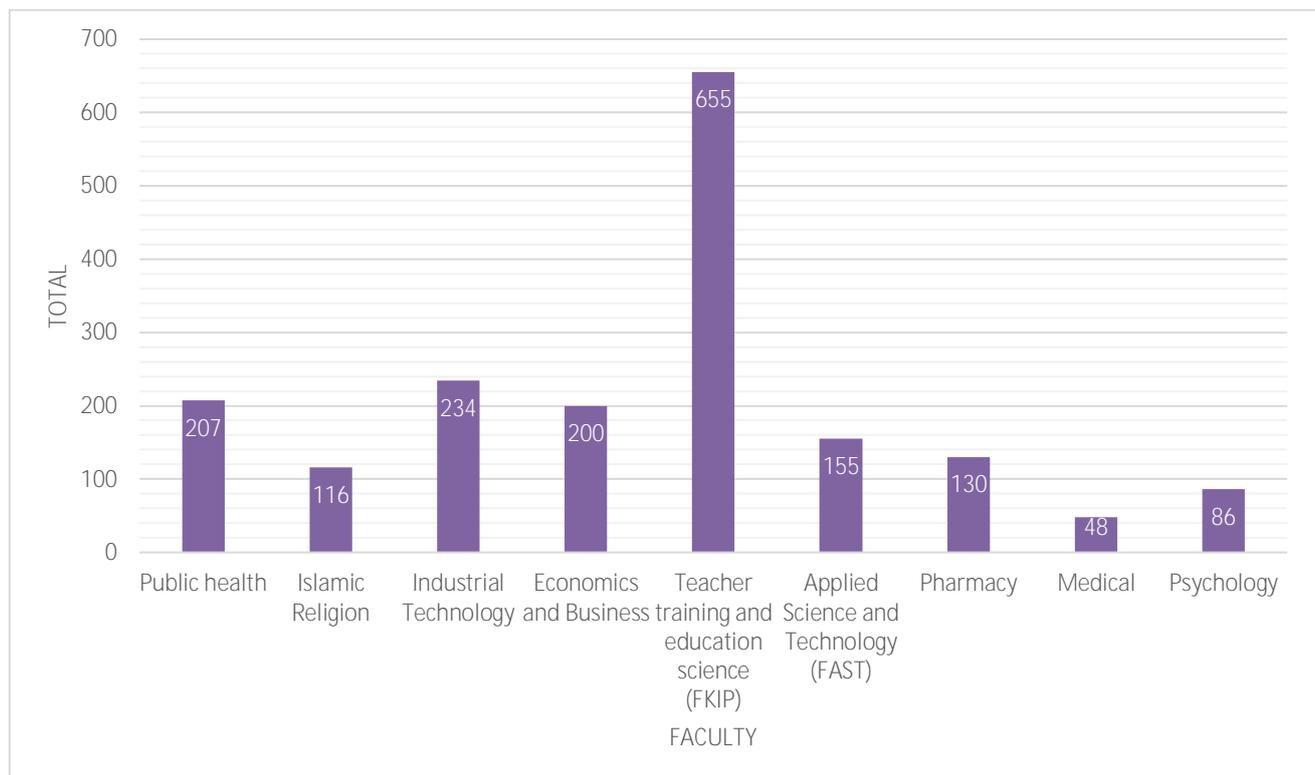
Template for Evidence(s)
UI GreenMetric Questionnaire

University   : Universitas Ahmad Dahlan
Country   : Indonesia
Web Address   : https://uad.ac.id

[6] Education and Research (ED)

[6.2] Total Number of Courses/Subjects Offered

Description:
Universitas Ahmad Dahlan consists of 10 faculties, which nine of them related to sustainability. They are the Faculty of Public Health, the Faculty of Islamic Religion, the Faculty of Industrial Technology, the Faculty of Economics and Business, the Faculty of Teaching and Education, the Faculty of Applied Science and Technology, the Faculty of Pharmacy, the Faculty of Medicine, and the Faculty of Psychology.

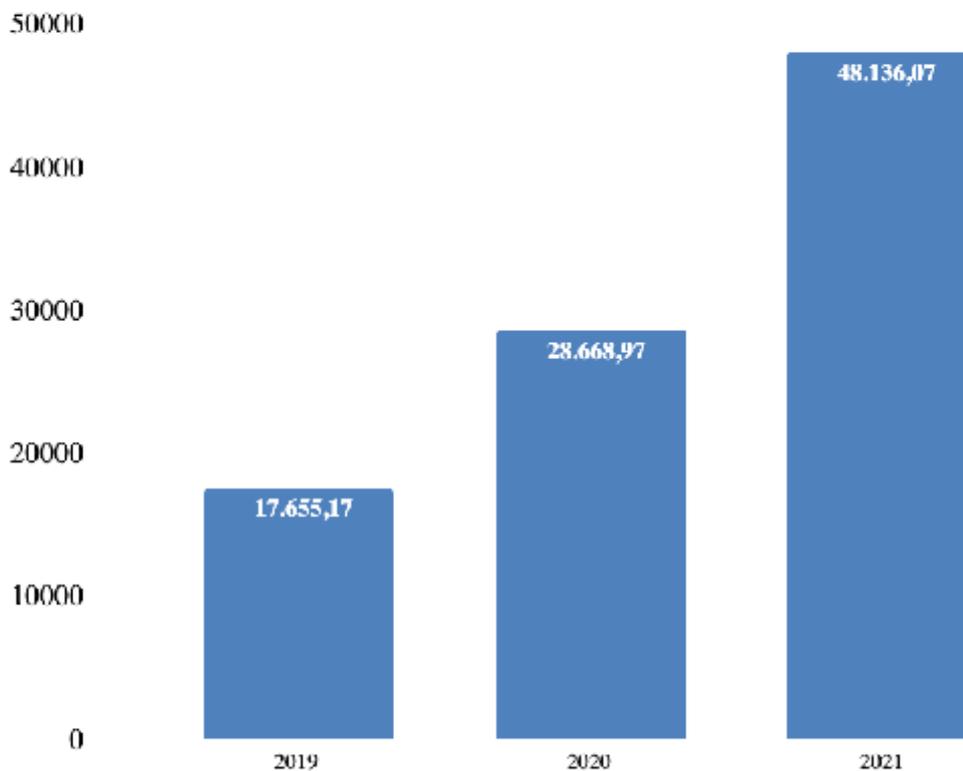Total number of courses offered in 2021 = **1831** courses

Template for Evidence(s)
UI GreenMetric Questionnaire

University   : Universitas Ahmad Dahlan
Country   : Indonesia
Web Address   : https://uad.ac.id

[6] Education and Research (ED)

[6.4] Total Research Funds Dedicated to Sustainability Research (in US Dollars)

Research fund on Sustainability (USD)

Description:
The image above shows the total research funding focusing on the sustainability research in the last 3 years (2019, 2020, and 2021). During the 3 years, the number of funds addressing sustainability steadily increased. The average annum last 3 years of research fund dedicated to sustainability research is = 31.486,74 US Dollars. Through LPPM UAD, the campus encourages lecturers to conduct research on sustainability. One of them is through a study center that focuses on sustainability, namely PSEL UAD http://psel.uad.ac.id/

Additional evidence link (i.e., for videos, more images, or other files that are not included in this file): https://docs.google.com/spreadsheets/d/1unONdL4nzw9DO7ox6TyImR0U4m1KENZE/edit#gid=678194776
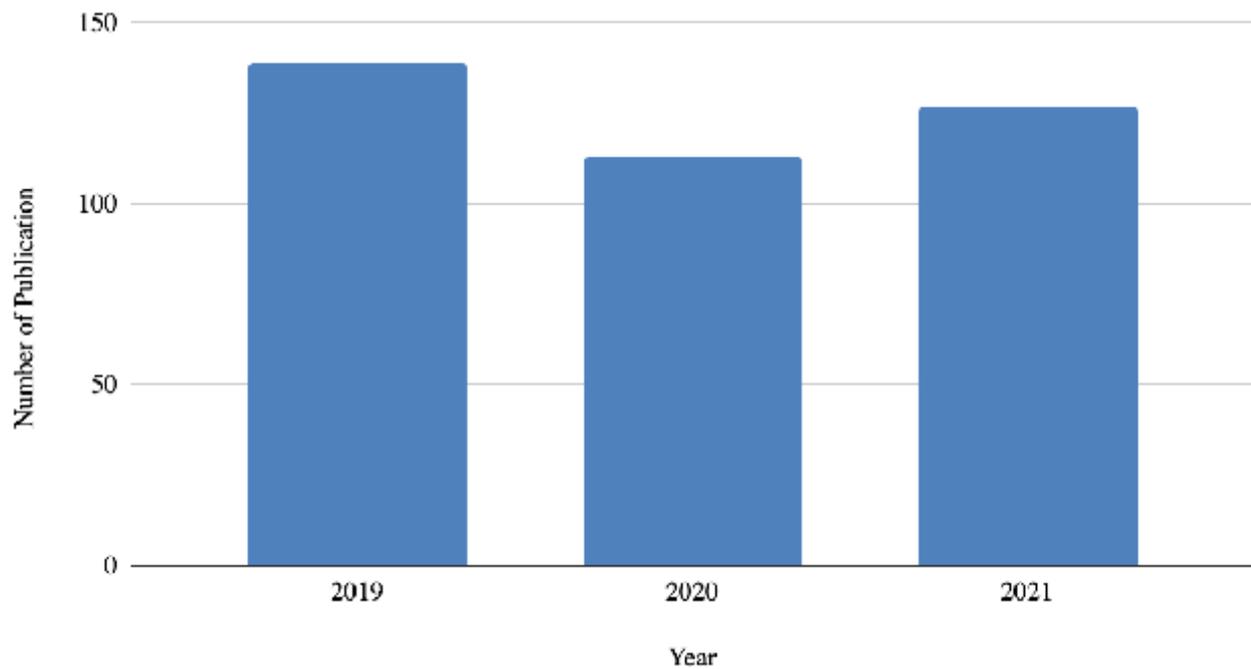
Template for Evidence(s)
UI GreenMetric Questionnaire

University   : Universitas Ahmad Dahlan
Country   : Indonesia
Web Address   : https://uad.ac.id

[6] Education and Research (ED)

[6.7] Number of scholarly publications on sustainability

Scholarly publications on sustainability (Universitas Ahmad Dahlan, Yogyakarta, Indonesia)

Description:
The total number of scholarly publications on sustainability in:
In 2019 : 139
In 2020 : 113
In 2021: 127
Average: 126

A total average per annum over the last 3 years is about 126 scholarly publications on sustainability
Additional evidence link (i.e., for videos, more images, or other files that are not included in this file):
https://docs.google.com/spreadsheets/d/1wF_JF3rraI58gDu2RfMsMD86AsbXVyJL/edit?usp=sharing&ouid=113057793339957344096&rtpof=true&sd=true

Template for Evidence(s)
UI GreenMetric Questionnaire

University   : Universitas Ahmad Dahlan
Country   : Indonesia
Web Address : https://uad.ac.id

[6] Education and Research (ED)

[6.7] Number of scholarly publications on sustainability

The total number of scholarly publications on sustainability in Universitas Ahmad Dahlan, Indonesia
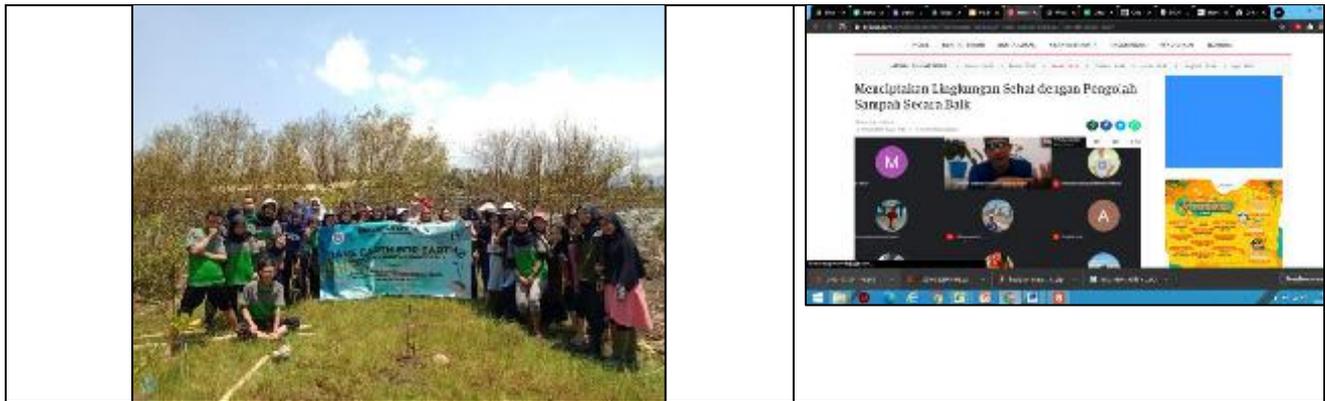
Template for Evidence(s)
UI GreenMetric Questionnaire

University   : Universitas Ahmad Dahlan
Country   : Indonesia
Web Address   : https://uad.ac.id

[6] Education and Research (ED)

[6.8] Number of Events Related to Sustainability

Events Related to Sustainability (Ahmad Dahlan University, Indonesia)

Description:
In 2019 – 2021 UAD has many events related to sustainability that can be grouped into (a) Seminars, (b) Community Service, (c) Webinars, (d) Workshops, (e) Tree Planting, and (f) Competitions. Activities in the form of seminars and webinars are carried out by study programs and institutions to provide understanding to the community. Community service activities are held by both lecturers and student organizations. Tree planting activities are example of sustainability activities implemented as part of community service activities. Activities in the form of competition are held as an effort of UAD to increase awareness, concern, and to motivate the UAD academic community and society to maintain sustainability.

The total number of sustainability/environment-related events
In 2019 : 8
In 2020 : 19
In 2021 : 30

A total average per annum over the last three years is 19 events

Additional evidence link (i.e., for videos, more images, or other files that are not included in this file):
https://docs.google.com/spreadsheets/d/1T5pMxgA4JUpvCIOC_ZBRM-qly3JoPqJV/edit?usp=sharing&ouid=113057793339957344096&rtpof=true&sd=true

Template for Evidence(s)
UI GreenMetric Questionnaire

University   : Universitas Ahmad Dahlan
Country   : Indonesia
Web Address   : https://uad.ac.id

[6] Education and Research (ED)

[6.8] Number of Student Organizations Related to Sustainability

No	Student Organizations	Faculty/Study Program
1	Komunitas Satu Jiwa (Community of One Soul)	Development Economics Study Program
2	Pusat Studi Energi dan Lingkungan UAD (Study Center for Energy and Environment of UAD)	Universitas Ahmad Dahlan
3	Mahasiswa Ahmad Dahlan Pecinta Alam (Ahmad Dahlan Student Association for Environmental and Adventure Activity)	Universitas Ahmad Dahlan
4	Hizbul Wathan UAD (Hizbul Wathan of UAD)	Universitas Ahmad Dahlan
5	UKM Korps Sukarela PMI UAD (Student Activity Unit of Korps Sukarela PMI of UAD)	Universitas Ahmad Dahlan
6	Ikatan Mahasiswa Muhammadiyah UAD (Muhammadiyah Student Association of UAD)	Universitas Ahmad Dahlan
7	UKM Pramuka UAD (Student Activity Unit of Scout of UAD)	Universitas Ahmad Dahlan
8	Pusat Mitigasi dan Penanggulangan Bencana UAD (Center for Mitigation and Disaster Management of UAD)	Universitas Ahmad Dahlan
9	Green Campus UAD (Green Campus of UAD)	Universitas Ahmad Dahlan

Description:
The number of student organizations related to sustainability at Universitas Ahmad Dahlan Yogyakarta is 9 organizations

Komunitas Satu Jiwa

Template for Evidence(s)
UI GreenMetric Questionnaire

University : Universitas Ahmad Dahlan
Country : Indonesia
Web Address : https://uad.ac.id

[6] Education and Research (ED)

[6.8] Number of Student Organizations Related to Sustainability

> PROGRAM PENGABDIAN

UAD Dampingi Pengelolaan Bank Sampah

GUNUNGKIDUL—Pusat Studi Energi dan Lingkungan Universitas Ahmad Dahlan (UAD) menggelar program pengabdian masyarakat multitahun dari 2021 hingga 2024 di Kalurahan Semanu, Kapanewon Semanu, Gunungkidul. Program tersebut diupayakan dapat mewujudkan kalurahan peduli sampah yang harapannya nanti akan mendukung sektor pariwisata khususnya di Kalurahan Semanu.

Kepala Pusat Sudi Energi dan Lingkungan UAD, Okka Adiyanto mengatakan program yang dirancang multitahun tersebut merupakan integrasi pengelolaan sampah, bank sampah, TPS 3R hingga bank pakan ternak. "Program pada 2021 berupaya pada peningkatan pengetahuan bagi masyaraka dan pemangku kepentingan terkait dengan pengelolaan sampah dan bank sampah. Tim Pusat Studi Energi dan Lingkungan yang terlibat sebanyak delapan dosen dengan bidang keilmuan berbeda-beda," ujar Okka dalam rilis yang diterima *Harian Jogja*, Jumat (4/5).

Pelaksanaan program pertama dilakukan pada 10 April 2021 yaitu

penyuluhan tentang kesehatan dan kebersihan lingkungan, bahaya dan risiko membakar sampah, bahaya dan risiko membuang sampah tidak pada tempatnya disampaikan oleh Ika Dyah Kumalasari, dosen Teknologi Pangan dan Alia Ariesanti dosen Akuntansi. Kegiatan ini diikuti oleh 15 perwakilan dari dusun yang ada di Kalurahan Semanu.

Program yang kedua dilaksanakan pada 29 Mei 2021. Terdapat empat materi yang disampaikan, yakni penyuluhan pengelolaan organisasi untuk meningkatkan efektivitas

pengelolaan sampah yang disampaikan oleh dosen Teknik Industri, Erdan Hami. Sosialisasi program pemantauan limbah sampah dan barang bekas disampaikan oleh Isana Arum Primasari, dosen Teknik Industri. Selanjutnya sosialisasi tentang pengelolaan bank sampah yang disampaikan oleh Utaminingsih Linarti, dosen Teknik Industri, dan terakhir sosialisasi pemanfaatan produk bank sampah terutama plastik, kertas dan minyak goreng bekas yang disampaikan oleh Gita Indah Budiarti, dosen Teknik Kimia. (*Maya Herawati/*)

Acara Pendampingan Program Pengelolaan Sampah di Kalurahan Semanu, Kapanewon Semanu oleh Pusat Studi dan Lingkungan UAD.

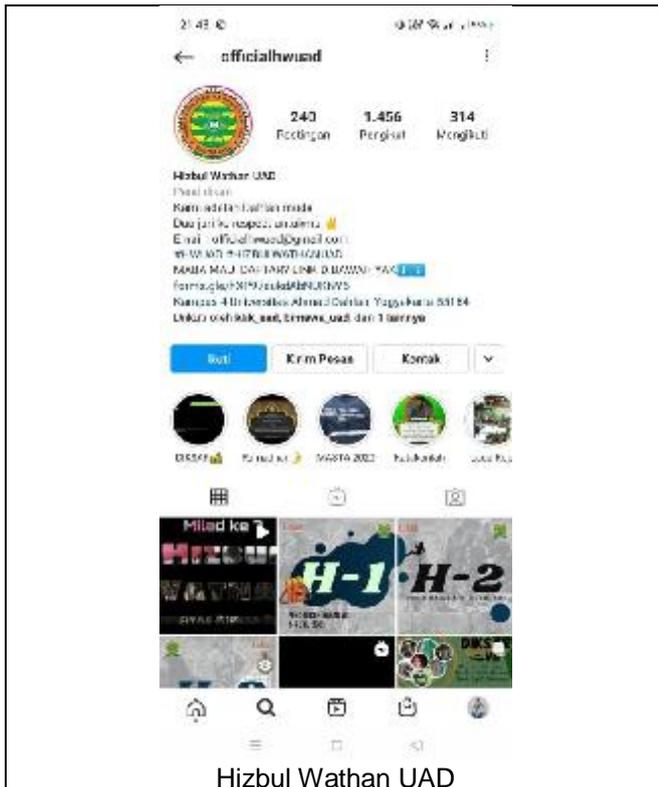Pusat Studi Energi dan Lingkungan UAD

Mahasiswa Ahmad Dahlan Pecinta Alam

Template for Evidence(s)
UI GreenMetric Questionnaire

University   : Universitas Ahmad Dahlan
Country   : Indonesia
Web Address   : https://uad.ac.id
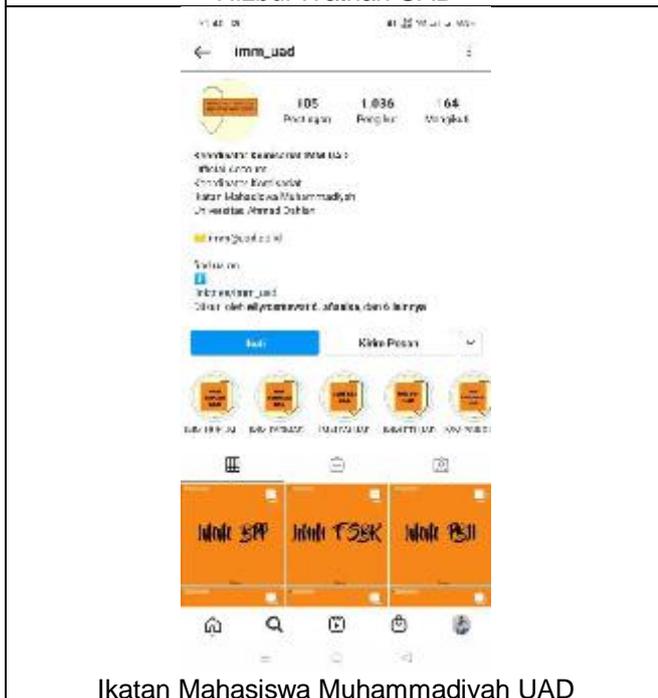
[6] Education and Research (ED)

[6.8] Number of Student Organizations Related to Sustainability

Hizbul Wathan UAD

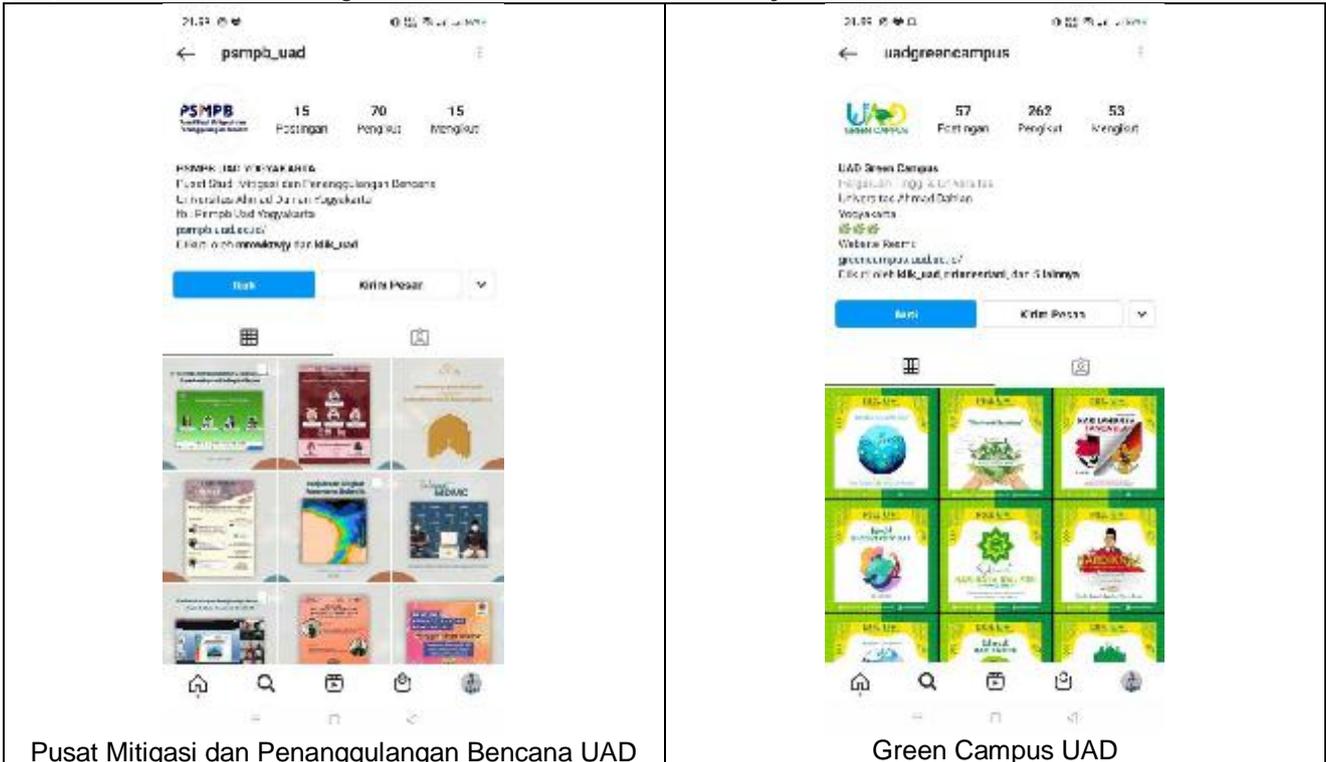UKM Korps Sukarela PMI UAD

Ikatan Mahasiswa Muhammadiyah UAD

UKM Pramuka UAD

Template for Evidence(s)
UI GreenMetric Questionnaire

University   : Universitas Ahmad Dahlan
Country   : Indonesia
Web Address : https://uad.ac.id

[6] Education and Research (ED)

[6.8] Number of Student Organizations Related to Sustainability

Pusat Mitigasi dan Penanggulangan Bencana UAD

Green Campus UAD

Green Campus Activity in UAD

Template for Evidence(s)
UI GreenMetric Questionnaire

University   : Universitas Ahmad Dahlan
Country   : Indonesia
Web Address   : https://uad.ac.id

[6] Education and Research (ED)

[6.12] Sustainability Report

Examples of sustainability Report Universitas Ahmad Dahlan, Indonesia

Description:
Universitas Ahmad Dahlan has joined UIGM in 2020 and run sustainability website at https://greencampus.uad.ac.id/ ever since. Each year, UAD releases annual report on sustainability at the website.

The detail of the report can be found at
1. Report 2020 is available at: https://greencampus.uad.ac.id/2022/08/16/laporan-2020/
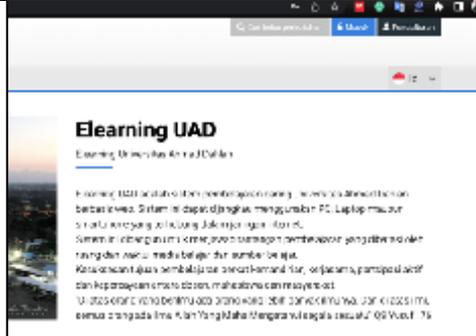2. Report 2021 is available at: https://greencampus.uad.ac.id/2022/08/16/laporan-2021/

Template for Evidence(s)
UI GreenMetric Questionnaire

University   : Universitas Ahmad Dahlan
Country   : Indonesia
Web Address   : https://uad.ac.id

[6] Education and Research (ED)

[6.14] Number of University Program(s) to Improve Teaching and Learning

Description:

Universitas Ahmad Dahlan conducts several activities to improve teaching and learning, for example:

1. Workshop Profil Lulusan, Deskripsi Lulusan, Reformulasi Perumusan dan Pengukuran CPL (Workshop on Graduate Profile, Graduate Description, Reformulation of CPL Measurement and Formulation) : https://lp2.uad.ac.id/workshop-profil-lulusan-deskripsi-lulusan-reformulasi-perumusan-dan-pengukuran-cpl/
2. Helpdesk e-learning of UAD ((https://lp2.uad.ac.id/)
3. Workshop Desain Pembelajaran Case-Based Method Dan Problem Based Learning Untuk Kurikulum OBE (Workshop on Learning Design of Case-Based Method and Problem Based Learning for OBE Curriculum) : https://lp2.uad.ac.id/workshop-desain-pembelajaran-case-based-method-dan-problem-based-learning-untuk-kurikulum-obe/
4. Workshop Implementasi Pembelajaran Berpusat pada Mahasiswa (Workshop on Student-Centered Learning Implementation) https://lp2.uad.ac.id/workshop-implementasi-pembelajaran-berpusat-pada-mahasiswa/

Template for Evidence(s)
UI GreenMetric Questionnaire

University   : Universitas Ahmad Dahlan
Country   : Indonesia
Web Address   : https://uad.ac.id

[6] Education & Research

[15] Number of Sustainability Community Services Project Organized and/or Involving students

Project name	Participants	Project duration	Project area
Pelatihan vertikultur tanaman sayur di Kelurahan Wirobrajan, Kemantren, Wirobrajan, Yogyakarta (Training on vegetable crop verticulture in Wirobrajan Village, Kemantren, Wirobrajan, Yogyakarta)	20	7 months	EC
Pelatihan Pembuatan Simplisia Dan Pemberdayaan Masyarakat Melalui Pembuatan Formula Wedang Uwuh Di Pedukuhan Nologaten, Desa Caturtunggal, Kecamatan Depok, Kabupaten Sleman (Training on Simplicia Making and Community Empowerment Through Wedang Uwuh Formulation Making in Nologaten Hamlet, Caturtunggal Village, Depok District, Sleman Regency)	20	7 months	WS
Peranserta Masyarakat Dalam Perlindungan Dan Pengelolaan Lingkungan Hidup (Community Participation in Environmental Protection and Management)	6	7 months	EC
Pelatihan Pembuatan Produk Handsoap, Sabun Padat Dan Lilin Aromatherapy untuk Anggota Nasyiyatul Aisyiyah, Bantul (Training on Product Making of Handsoap, Solid Soaps, and Aromatherapy Candles for Nasyiyatul Aisyiyah Members, Bantul)	20	7 months	EC

Description:
According to the community service guideline, it states that all community services conducted by UAD's lecturer should include student. The guideline can be accessed at https://docs.google.com/spreadsheets/d/1T5pMxgA4JUpvCIOC_ZBRM-qIy3JoPqJV/edit?usp=sharing&ouid=113057793339957344096&rtpof=true&sd=true.

The complete information about the community services in UAD can be accessed at https://lppm.uad.ac.id/kinerja-pengabdian/

Template for Evidence(s)
UI GreenMetric Questionnaire

University   : Universitas Ahmad Dahlan
Country   : Indonesia
Web Address   : https://uad.ac.id

[6] Education & Research

[16] Number of sustainability-related startups

No.	Information
1	Startup name: Sembada Group Startup area in UI Greenmetric questionnaire (SI, EC, WS, WR, TR, ED): EC URL: https://kubi.uad.ac.id/daftar-tenant/#toggle-id-5 Description: Sembada Group is a Business Unit of alumni of Universitas Ahmad Dahlan engaged in services/products with the movement of SPIRIT (Solutive, Professional, Innovative, Responsive, and Trained). His business fields are: PCB Manufacturing, AC Service, Research Assistant, Training, and Renewable Energy Development. Photos: Perawatan atau pencucian AC
2	Startup name: Sprulina Shoap Startup area in UI Greenmetric questionnaire (SI, EC, WS, WR, TR, ED): WS URL: https://kubi.uad.ac.id/daftar-tenant/#toggle-id-6 Description: Spirulina soap is a product produced by a chemical engineering student study club (KS) at a price of around Rp. 10,000 per stick. From these products, they will not only produce spirulina soap, but also soaps such as dish and hand soap, and also aromatherapy candles. For now, the most popular product are aromatherapy candles. A single production of 50 pcs with a unit selling price is at Rp. 5.000.- Photos:
3	Startup name: PT Jogya Media Inovasi (Simonkori) Startup area in UI Greenmetric questionnaire (SI, EC, WS, WR, TR, ED): EC URL: https://kubi.uad.ac.id/daftar-tenant/#toggle-id-9

Description: Simonkori is used for hydroponic farming systems, farming without using soil. Not only for plants, Simonkori can also be used to monitor shrimp ponds. Simonkori has several sensors that can simultaneously detect several variables such as water pH and tds, ec (electronic conductivity) sensors, water axis, oxygen content in water and salinity.

Photos:

4	Startup name: RespoKes
	Startup area in UI Greenmetric questionnaire (SI, EC, WS, WR, TR, ED): EC
	URL: https://lppm.uad.ac.id/kunjungan-pimpinan-uad-ke-workshop-respokes/
	Description: Respokes is a prototype of LPPM UAD's innovation in collaboration with alumni and youth movement of Masjid Al Hidayah Ganjahan. This response is equipped with a temperature monitoring system and an automatically controlled hand washing faucet or hand sanitizer. It is hoped that this Response will become a product of UAD for the community in facing new adaptations by complying with health protocols.
	Photos:

The number of startups related to sustainability at Universitas Ahmad Dahlan is 4 startups

Additional evidence link (e.g. for videos, more images, or other files that are not included in this file):