



Template for Evidence(s) UI GreenMetric Questionnaire

University : Padjadjaran University
Country : Indonesia
Web Address : www.unpad.ac.id

[2] Energy and Climate Change (EC)

[2.11] Please Provide The Total Carbon Footprint (CO₂ emission in the last 12 months, in metric tons)

Option 2: Recommended by UI GreenMetric

CO₂ (electricity)

$$\begin{aligned} &= \frac{\text{electricity usage per year (kWh)}}{1000} \times 0,84 \\ &= \frac{3767559.53 \text{ kWh}}{1000} \times 0,84 \\ &= 3164.75 \text{ metric tons} \end{aligned}$$

CO₂ (bus)

$$\begin{aligned} &= \frac{\text{number of shuttle bus in your university} \times \text{total trips for shuttle bus service each day} \times \text{approximate travel distance of vehicle each day inside campus}}{100} \\ &= \frac{15 \times 5 \times 4 \times 240}{100} \times 0,01 \\ &= 7.2 \text{ metric tons} \end{aligned}$$

CO₂ (cars)

$$\begin{aligned} &= \frac{\text{number of cars entering your university} \times 2 \times \text{approximate travel distance of vehicle each day inside campus only (KM)} \times 240}{100} \times 0,02 \\ &= \frac{309 \times 2 \times 4 \times 240}{100} \times 0,02 \\ &= 118.65 \text{ metric tons} \end{aligned}$$

CO₂ (motorcycle)

$$\begin{aligned} &= \frac{\text{number of motorcycle entering your university} \times 2 \times \text{approximate travel distance of vehicle each day inside campus only (KM)} \times 240}{100} \times 0,01 \\ &= \frac{1040 \times 2 \times 4 \times 240}{100} \times 0,01 \\ &= 499.2 \text{ metric tons} \end{aligned}$$

CO₂ (total)

$$\begin{aligned} &= 3164.75 + 7.2 + 118.65 + 499.2 \\ &= 3789.8 \text{ metric tons} \end{aligned}$$

Carbon footprint in 2021 = 3,789.8 metric tons

Universitas Padjadjaran Total Carbon Footprint (UI GreenMetric)

Description:

In 2021 Padjadjaran University produced a total carbon emission of 3561.96 metric tons. This decrease in the amount of carbon production is also due to the change in the system to online learning during the pandemic.



The largest carbon footprint comes from the use of electricity of 3164 and the second highest contributor to carbon emissions is motorbikes as much as 449.2