

## Template For Evidence(s) UI GreenMetric Questionnaire

University : Walailak University  
Country : Thailand  
Web Address : <https://green.wu.ac.th/>

### 2) Energy and Climate change (EC)

#### 2.11 Please Provide The Total Carbon Footprint (CO<sub>2</sub> emission in the last 12 months, in metric tons)

##### Appendix 3

##### Calculation of Carbon Footprint Per Year

The Carbon footprint calculation can be conducted based on the stage of calculation as stated in [www.carbonfootprint.com](http://www.carbonfootprint.com), which is the sum of electricity usage per year and transportation per year.

##### a. Electricity usage per year (EC 2.7)

The CO<sub>2</sub> emission from electricity  
= (electricity usage per year in kWh/1000) x 0.84  
= ((**11,595,049.31** /1000) x 0.84  
= **9739.84 metric tons**

Notes:

0.84 is the coefficient to convert kWh to metric tons (source: [www.carbonfootprint.com](http://www.carbonfootprint.com))

##### b. Transportation per year (Shuttle) (TR 5.6)

= (Number of the shuttle bus in your university x total trips for shuttle bus service each day x approximate travel distance of a vehicle each day inside campus only (in kilometers) x 240/100) x 0.01  
= ((2\*5\*0.5\*240) /100)\*0.01  
= **0.12 metric tons**

Notes:

240 is the number of working days per year

0.01 is the coefficient (source: [www.carbonfootprint.com](http://www.carbonfootprint.com)) to calculate the emission in metric tons per 100

km for bus

##### c. Transportation per year (Car) (TR 5.2)

= (Number of cars entering your university x 2 x approximate travel distance of a vehicle each day inside campus only (in kilometers) x 240/100) x 0.02  
= (824 \*2 \*0.5\*240/100) \* 0.02  
= **39.55 metric tons**

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Notes:

240 is the number of working days per year

0.02 is the coefficient (source: [www.carbonfootprint.com](http://www.carbonfootprint.com)) to calculate the emission in metric tons per 100

km car

**d. Transportation per year (Motorcycle) (TR 5.3)**

= (Number of motorcycle entering your university x 2 x approximate travel distance of a vehicle each day

inside campus only (in kilometers) x 240/100) x 0.01

=  $((650 * 2 * 0.5 * 240) / 100) * 0.01$

= **15.6 metric tons**

Notes:

240 is the number of working days per year

0.01 is the coefficient (source: [www.carbonfootprint.com](http://www.carbonfootprint.com)) to calculate the emission in metric tons per 100

km for motorcycle

**e. Total emission per year**

= total emission from electricity usage + transportation (bus, car, motorcycle)

= **9739.84 + (0.12 + 39.55 + 15.6 )**

= **9795.11 metric tons**

Note: You can use your own method and put it in evidence (i.e., figure, link, etc.)

**2.11.1 Total Carbon Footprint (Walailak University, Thailand)**



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