Annual Report
on SDG 7 Affordable and Clean Energy

7.2 University measures towards affordable and clean energy

7.2.3 Does your university as a body have a process for carbon management and reducing carbon dioxide emissions?

Thaksin University manages carbon through a university-wide process with three linked parts: annual measurement of CO2 emissions (9,926 tCO2 in the latest 12-month period), reduction programs in energy, transport and waste, and review of results by university management. Campus policies on cycling and walking support the process.

1. Measurement: annual CO2 emissions

Thaksin University emitted 9,926 metric tons of CO2 in the latest 12-month period. Electricity accounts for 96% of the total. (carbon footprint page)

Emission source	CO2 (metric tons/year)	Share
Electricity	9,540	96.1%
Transport – motorcycles	244	2.5%
Transport – cars	142	1.4%
Total	**9,926**	**100%**

Indicator	Value
Open space per person (m^2)	302.00
Ratio of total CO2 emissions to open space per person (UI GreenMetric EC indicator)	32.87

The calculation follows the UI GreenMetric method, which counts electricity use and campus commuting. Under the 2040 announcement, the University will extend the assessment to all emission sources.

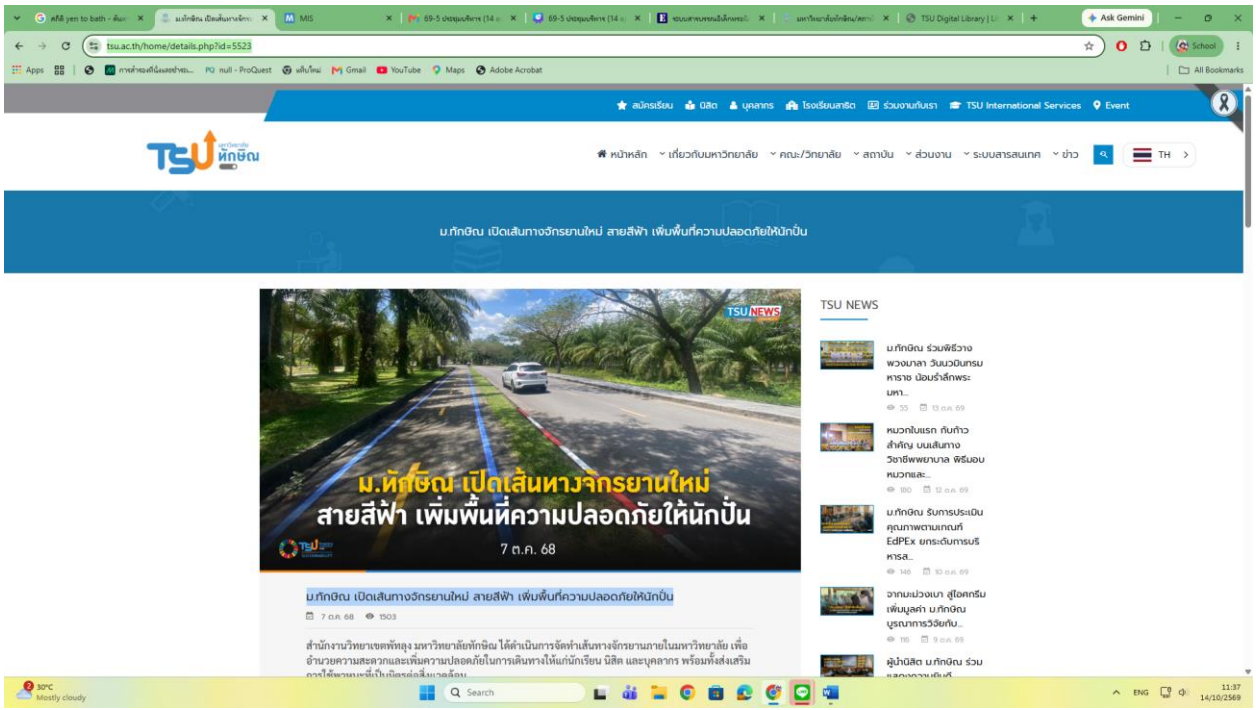
2. Reduction programs

The University runs programs to cut emissions from its two measured sources, electricity and transport, plus waste. Some are in operation and some are being planned.

Area	Program	Evidence
Energy	Energy conservation program	Carbon footprint page
Energy	Efficient use of electrical appliances	Energy and Climate Change page
Energy	Air-conditioner maintenance	Carbon footprint page
Transport	Bicycle and pedestrian policy on campus	Transportation page
Transport	5.23 km bicycle lane network, Phatthalung campus (opened October 2025)	News, 7 Oct 2025
Waste	Waste management system	Carbon footprint page

The bicycle network links student dormitories, staff housing and the central teaching building. Lanes are marked in blue and separated from car traffic, with signs, lighting along the route and covered bicycle parking at main buildings. It was built to provide safe, environmentally friendly travel on campus, together with a safe-riding campaign for students.

ม.ทักษิณ เปิดเส้นทางจักรยานใหม่ สายสีฟ้า เพิ่มพื้นที่ความปลอดภัยให้นักปั่น
https://www.tsu.ac.th/home/details.php?id=5523



3. Governance, monitoring and reporting

The carbon management process runs as an annual cycle under the President's authority:

1. **Set policy and target:** UIGreen Policy
2. **Measure:** calculate annual CO2 emissions by source (Section 2).
3. **Reduce:** run energy, transport cutting at source first (Section 3).
4. **Report and review:** report progress to executives and the University Council, then update plans

Climate targets are written into the University's strategic and action plans at every level

Evidence

Date	Evidence	Shows
7 Oct 2025	News: new blue bicycle lanes https://adminpt.tsu.ac.th/greenheart/index.php	Transport reduction Policy and Report

Template for Evidence(s)
UI GreenMetric Questionnaire

University : Thaksin University
Country : Thailand
Web Address : http://www.tsu.ac.th

[2] Energy and Climate Change (EC)

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

CO_2 (electricity)
$= \frac{electricity\ usage\ per\ year\ (kWh)}{1000} \times 0.84$
$= \frac{8.149.687.43\ kWh}{1000} \times 0.84$
= **6**,845.74 metric tons

CO_2 (bus)
$= \frac{number\ of\ shuttle\ bus\ in\ your\ university \times total\ trips\ for\ shuttle\ bus\ service\ each\ day \times approximate\ travel\ distance\ of\ vehicle\ each\ day\ insid}{100}$

$= \frac{3 \times 24 \times 3.7 \times 240}{100} \times 0.01$
= 6.39 metric tons

ปริมาณการปล่อยคาร์บอนรวมของมหาวิทยาลัยทักษิณในช่วง 12 เดือนที่ผ่านมา อยู่ที่ประมาณ 7,964.97 metric tons เทียบเท่า ซึ่งลดลง 1,533.05 metric tons เมื่อเทียบกับปีที่ผ่านมา การลดลงดังกล่าวเป็นผลจากโครงการของมหาวิทยาลัยในการส่งเสริมการใช้พลังงานหมุนเวียนผ่านการติดตั้งระบบโซลาร์รูฟท็อป การจัดตั้งสถานีชาร์จรถยนต์ไฟฟ้า (EV) รวมถึงการสนับสนุนการเดินเท้าและลดการใช้รถยนต์ส่วนบุคคลด้วยการให้บริการรถโดยสารภายในมหาวิทยาลัย นอกจากนี้ มหาวิทยาลัยยังได้พัฒนาทางจักรยานเพิ่มเติมและขยายพื้นที่ทางเดินมีหลังคาครอบคลุมทั่วทั้งมหาวิทยาลัย เพื่อเพิ่มความสะดวกในการเข้าถึงและความสบาย พร้อมทั้งส่งเสริมการเดินทางอย่างยั่งยืน

The total carbon footprint of the Thaksin university in the last 12 months is approximately 7,964.97 metric tons which represents a reduction of 1,327.98 metric tons compared to the last year. This reduction is the result of the university's initiatives to promote the use of renewable energy through solar rooftop installations, the establishment of electric vehicle (EV) charging stations, and the encouragement of walking and reduced private car usage by providing on-campus public transportation services. Additionally, the university has developed more bicycle lanes and expanded covered walkway areas throughout the campus to enhance accessibility and comfort while promoting sustainable mobility.