

# The sustainability efforts of Ton Duc Thang University in the South of Vietnam

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**Abstract.** Established in 1997, Ton Duc Thang University (TDTU) is now among the best universities in Vietnam for all aspects, after 20 years of development. With sixteen faculties of multi-disciplines and around 25,000 students, TDTU has made lots of achievements. In 2017, TDTU is ranked 245th in the world (and ranked 1st in Vietnam) on Sustainable Development by UI GreenMetric World University Rankings (UI GreenMetric); ranked 1st among universities in Vietnam for high-quality research outputs by Nature Index; ranked 2nd among universities in Vietnam (and ranked 1st in research category) by Xephangdaihoc, a group of independent experts of Vietnam. Sustainability is of TDTU’s focus. This paper shortly discussed TDTU’s latest achievements on sustainability, and then focused on issues and innovation in managing waste at Ton Duc Thang University.

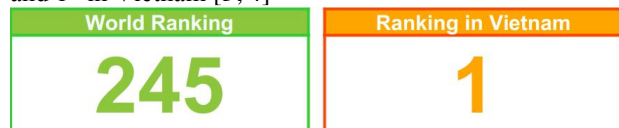
## 1 Introduction

In 2017, TDTU was ranked 245<sup>th</sup> by UI GreenMetric in the world

**Table 1** TDTU score

Category	Point	Maximum Point	Percentage
Setting and Infrastructure (SI)	583	1500	38.87 %
Energy and Climate Change (EC)	1,016	2100	48.38 %
Waste (WS)	1,176	1800	65.33 %
Water (WR)	500	1000	50.00 %
Transportation (TR)	813	1800	45.17 %
Education (ED)	659	1800	36.61 %
<b>Total Score</b>	<b>4,747</b>	<b>10000</b>	<b>47.47 %</b>

and 1<sup>st</sup> in Vietnam [3, 4]



**Fig. 1** TDTU ranking

According to the evaluation from UI GreenMetric, in 2017 TDTU performed under average for most of indicators. For the category of Water, TDTU was at average, exactly 50%. And the performance of Waste was pretty good and also the highest record, 65.33%.

Before joining UI GreenMetric, leaders of TDTU basically thought that they should simply build a clean and well-organized university, beside excellent academic programs and staff. However, after joining this university ranking and some other university rankings, they changed their minds that each indicator of a

university can be measured. It is quite lucky that University of Indonesia hosts UI GreenMetric, and sustainability of universities is evaluated every year.

In some countries like Vietnam, universities basically focus on academic programs and their task forces. But sustainability is also an important category that helps to provide staff and students with clean and safe environment. This is essential for improving and maintaining quality of research and education of universities, especially in the current era of much pressure and stress [1, 2].

The 2017 ranking of TDTU by UI GreenMetric was 245<sup>th</sup>. Many indicators of TDTU must be improved in the following years. Thanks to the methodology of the ranking, the University’s leaders have been clear what they should pay attention to. Hopefully, TDTU’s ranking by UI GreenMetric will be higher in the future.

## 2 Issues and innovation in managing waste at TDTU

By UI GreenMetric, TDTU gave very good performance of Waste. This indicator includes 6 items and TDTU’s record is listed as below [3]:

- Program to reduce the use of paper and plastic in campus: Print when necessary
- Recycling program for university waste: Partial (25% - 50% of waste)
- Toxic waste handled: Completely contained, inventoried and handled
- Organic waste treatment: Fully composted, compost used internally and externally
- Inorganic waste treatment: Partially recycled (less than 50%)

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- Sewerage disposal: Centralized treatment before disposal.

Totally, TDTU's record of this indicator is of 65.33%, the highest one of its sustainability.

Basically, waste causes many issues for universities. TDTU is a multi-disciplinary university with over 20,000 students, the waste released is quite huge every day. Thanks to some innovative methods, TDTU can control all issues from waste very well.

### 2.1 Program to reduce the use of paper and plastic in campus

The University issued an official instruction to guide all staff and students [3]:

- Only print out when necessary
- Two-side printing must be taken into account
- Online academic materials are encouraged in using.

In addition, TDTU built a new library equipped with very modern equipment. This is a very luxurious space for our students not only to study but also to entertain. With the multimedia systems in the library, our students have no motivation to print anything out.



Fig. 2. TDTU new library

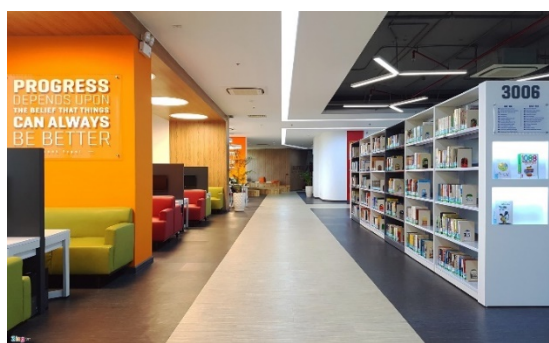


Fig. 3. TDTU new library

To make the campuses clean or reduce the use of plastic, beside issuing general principles that all staff and students have to practice, TDTU issued some rules to punish anyone violating such principles. The punishment is quite simple that one has to pay money if violating the rules.

### 2.2 Recycling program for university waste

All wastes are classified thanks to their characteristics. Some of them are recycled for further uses. In addition, the University signed a contract with a waste-treatment company that all waste released in the campus must be treated before being transported out [3].

### 2.3 Treatment program for university chemical waste

To prevent any pollution from chemical wastes, the University has several piped systems connecting all areas where chemicals can be generated. Then they are taken to a treatment station [3].

In addition, many trees and grass are planted in all campuses; and old traffics possibly causing air pollution are not allowed to get in any campus. As a result, there is no traffic pollution at all.



Fig. 4. trees and grass planted in TDTU

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