

Assessing Water Bottle Consumption on College Campus in Abu Dhabi: Towards a Sustainable Future

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Abstract : Background: In a rapidly developing environment, concerns for pollution and depletion of natural resources are challenges facing global communities. A major source of waste on university campuses is the use of plastic bottles, while cost of production and processing is high. Consumer demand stimulates popularity of plastic bottle production, but researchers agree this is not a sustainable solution. This pilot study assesses plastic water bottle used and attitude towards alternatives among Emirati college students. Methods: This study was conducted in December 2016, using an anonymous self-administered survey of 17 questions. The survey included personal characteristics, plastic water bottle used, attitude towards alternative replacement and sustainability. For statistical analysis, STATA 14C was used to determine significance of association. Results: A total of 500 Emirati students (94.6% female) completed the survey. Of the students, 82.6% preferred bottled water over tap water, and 44.6% reported disposable bottled water use in their household, 42.6% purchased disposable bottled water more than twice a week, and 44.2% purchased bottled water at least once, while on campus. Students were willing to consider switching to alternative water bottle use if it was more convenient (22.54%), cost less (55.13%) or improved the taste (22.54%), while only 7.85% students would not consider any alternatives. There was a significant difference in attitude towards alternatives to water bottle use by area of study ($p < 0.005$). Conclusion: The UAE strives to be at the forefront of sustainable development and protecting biodiversity. However, a major challenge is the increasing amount of waste, exacerbated by the increasing consumer demand for convenience as seen in this billion-dollar industry. Plastic bottles, for all purposes, pose a serious threat to the environment and sustainable campus initiatives can help reduce the ecological footprint, improve awareness of safe alternatives and benefits to the environment.

Keywords : ecological foot print, emirati students, plastic bottle consumption, sustainable campus

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