



## The Impact of Perceptions of ‘The Green Bangkok 2030 Project’ on Attitudes towards Sustainable Development Goals (SDGs) and Sustainable Behavioral Intentions among Thai College and University Students in Thailand

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### Abstract

This study examined the influence of media exposure to the Green Bangkok 2030 Project on sustainable behavioral intentions among Thai college and university students, as mediated by attitudes toward the Sustainable Development Goals (SDGs) and perceptions of the project. Employing convenience sampling, a total of 193 respondents aged 18–27 years were selected to participate in survey. Regression analysis revealed three key findings as follows: First, media exposure alone did not significantly predict students’ perceptions of the Green Bangkok 2030 Project. However, when attitudes toward the SDGs were considered, media exposure became a significant positive predictor of sustainable behavioral intention, although its effect was relatively small. Students’ attitudes toward the SDGs showed a much stronger influence on sustainable behavior. Second, perceptions of the Green Bangkok 2030 Project positively influenced sustainable behavioral intention; however, attitudes toward the SDGs showed the strongest predictive effect. Although media exposure and project perceptions contributed to sustainable behavior, SDG-related attitudes played the central role in shaping students’ intentions. Therefore, future initiatives should focus on strengthening SDG attitudes through targeted and engaging communication strategies.

**Keywords:** Green Bangkok 2030 Project, Media Exposure, Perception, Attitude, Sustainable Behavioral Intentions, Thai University Students, Environmental Communication

### Introduction

Sustainability communication influences young people’s environmental awareness, attitudes, and behaviors. University students are a pivotal group supporting the Sustainable Development Goals (SDGs). In Thailand, the Green Bangkok 2030 project,



initiated by the Bangkok Metropolitan Administration (BMA), aims to increase green space to at least 10 square meters per person by 2030 (The Standard Team, 2020). By converting underused urban areas into green spaces, the project improves public health and reduces urban heat and air pollution. It also promotes cross-sector collaboration, supporting SDG 17 (Partnerships for the Goals) (C40 Cities, 2020; United Nations, n.d.).

Perception plays a key role as a link between media exposure and students' attitudes toward the SDGs and their sustainable behavioral intentions. It is influenced by how students interpret media messages about the Green Bangkok 2030 Project, which in turn shapes their attitudes and behavioral responses.

However, a key challenge remains because it is unclear whether students' perceptions of the Green Bangkok 2030 Project have an impact on their attitudes toward the SDGs and their sustainable behavioral intentions despite ongoing media exposure. Despite its importance, limited research has explored how Thai university students perceive the Green Bangkok 2030 Project and how these perceptions influence their attitudes toward the SDGs and sustainable behavioral intentions. This creates a critical gap in understanding the project's effectiveness among a key target group, particularly in addressing the "knowledge–practice gap," where awareness does not necessarily lead to behavioral change. Awareness alone may not lead to action, as media exposure can shape responses. Guided by Agenda-Setting Theory, which explains how media directs public attention (West & Turner, 2020), this study examines the relationships among perception, media exposure, attitudes, and sustainable behavioral intentions, and outlines the research framework and methodology.

### Objectives of the Study

1. To examine the influence of media exposure to the Green Bangkok 2030 Project on the sustainable behavioral intentions in daily life as mediated by attitudes toward Sustainable Development Goals (SDGs) among Thai college and university students studying in Thailand.
2. To examine the influence of perceptions of the Green Bangkok 2030 Project on the sustainable behavioral intentions as mediated by attitudes toward Sustainable Development Goals (SDGs) among Thai college and university students studying in Thailand.
3. To examine the influence of media exposure to the Green Bangkok 2030 Project on the perception of the project among Thai college and university students in Thailand.



## Literature Review

Research has examined how communication and media influence environmental awareness and sustainable behavior, particularly among university students as future decision-makers. Understanding students' responses to sustainability initiatives requires theoretical support to explain how media shapes perceptions, attitudes, and behavior.

This study is grounded in Agenda-Setting Theory, which argued that media influences what people think about by emphasizing certain issues (West & Turner, 2020). In the context of the Green Bangkok 2030 Project, media coverage directed attention toward environmental protection and the Sustainable Development Goals (SDGs). Repeated exposure shaped students' perceptions, which in turn influenced their attitudes and behavioral intentions.

Previous studies supported the role of communication and attitudes in promoting sustainable behavior. Kesaprakorn (2023) found that media exposure, knowledge, and perceived behavioral control significantly predicted students' sustainable behavioral intentions at the Sustainability Expo 2022, highlighting the importance of strategic communication. Similarly, Afroz and Ilham (2020) reported that although students had high knowledge and positive attitudes toward the SDGs, actual behavior remained moderate, with attitudes showing a stronger relationship with behavior than knowledge. Social media was also identified as a key information source. Rosentrater and Burke (2017) found that despite strong environmental awareness, students showed limited personal responsibility and consistent practice, indicating a gap between awareness and action.

Therefore, this study examined how Thai students' perceptions of the Green Bangkok 2030 Project influenced their attitudes toward the SDGs and sustainable behavioral intentions, contributing to sustainability communication research in the Thai context.

In this study, media exposure was the independent variable, referring to the level of students' exposure to information about the Green Bangkok 2030 Project. Perception of the project was also treated as an independent variable, reflecting how students interpret and evaluate the project. Attitudes toward the SDGs acted as a mediating variable, representing students' beliefs and evaluations of sustainability goals. Sustainable behavioral intentions were the dependent variable, referring to students' willingness to engage in environmentally responsible actions.

## Hypotheses

H1: Media exposure to the Green Bangkok 2030 Project significantly influences sustainable behavioral intentions in daily life as mediated by attitudes toward Sustainable Development Goals (SDGs) among Thai college and university students studying in Thailand.



H2: Perceptions of the Green Bangkok 2030 Project significantly influence sustainable behavioral intentions as mediated by attitudes toward Sustainable Development Goals (SDGs) among Thai college and university students studying in Thailand.

H3: Media exposure to the Green Bangkok 2030 Project significantly influences perceptions of the Green Bangkok 2030 Project among Thai college and university students in Thailand.

### Conceptual Framework

This conceptual framework explained how media exposure to the Green Bangkok 2030 Project influenced Thai college and university students' sustainable behavior through their perceptions and attitudes toward sustainability. The study highlighted how students gained awareness, knowledge, and motivation from media messages, and how these factors shaped their attitudes toward the Sustainable Development Goals (SDGs). These attitudes, in turn, influenced their intention to practice sustainable behaviors in daily life.

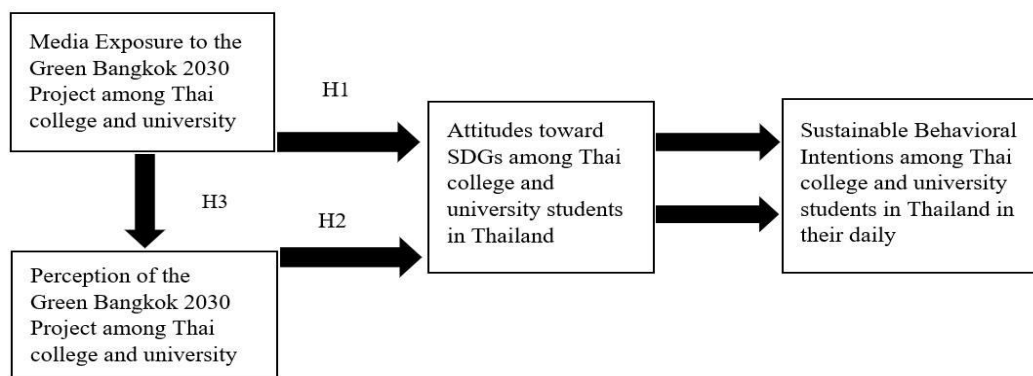


Figure 1: Conceptual framework

### Research Methodology

#### Research Design

The study adopted a quantitative survey approach to examine the effects of students' media exposure and their perceptions of the Green Bangkok 2030 Project on their attitudes toward the SDGs and sustainable behavioral intentions. A structured questionnaire was employed as the data collection tool for college and university students in Bangkok. The research design enabled statistical analysis to identify relationships among media exposure, perceptions, attitudes, and sustainable behavior.

#### Population and Sampling Methods

The population comprised Thai college and university students aged 18 or above who had been exposed to media related to the Green Bangkok 2030 Project. This study



employed a non-probability sampling method, specifically convenience and purposive sampling, due to time and accessibility constraints. The target population consisted of Thai college and university students in Thailand who have been exposed to information related to the Green Bangkok 2030 Project. There were screening questions to ensure all respondents are current Thai student and had prior exposure to media exposure to Green Bangkok 2030 Project, through university networks and online Platforms.

The required sample size was determined using Green's (1991) formula for Multiple regression analysis ( $N \geq 50 + 8m$ ), where  $N$  represents the required sample size and  $m$  represents the number of independent variables. With two independent variables included in the model, the minimum required sample size was 66 respondents. The final sample of 193 students exceeded this requirement and was therefore considered adequate for statistical analysis.

The final sample consisted of 193 respondents selected through non-probability sampling, which was appropriate for accessing participants who met the study criteria within the given time and resource constraints.

The research questionnaire was evaluated using the Index of Item-Objective Congruence (IOC) method by three experts in relevant fields. The overall IOC score was 0.81, which is higher than the acceptable criterion between 0.67-1.00 and met the acceptable standard for content validity when assessed by three experts. Therefore, the questionnaire items were considered valid and consistent with the research objectives. In addition, the questionnaire was refined and improved based on the experts' suggestions to enhance clarity, wording, and content appropriateness before data collection. In addition, reliability was assessed using Cronbach's Alpha, with all values exceeding 0.70.

### **Research Instrument**

This study employed a structured questionnaire consisting of six sections. Section I included screening questions to identify eligible respondents.

Section II collected demographic data such as gender, age, education level, income, SDG awareness, and perceptions of urban environmental conditions.

Section III measured media exposure to the Green Bangkok 2030 Project, including participation in related activities and frequency of exposure to 13 communication channels using a 5-point Likert scale, ranging from 1 = Never (0 time/week), 2 = Rarely (1–2 times/week), 3 = Sometimes (3–4 times/week), 4 = Often (5–6 times/week), and 5 = Always (7 times/week).

Section IV assessed students' perceptions of the Green Bangkok 2030 Project through 8 statements, ranging from 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, and 5 = Strongly Agree.

Section V examined attitudes toward the Sustainable Development Goals (SDGs)



using 18 Likert-scale items, ranging from 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, and 5 = Strongly Agree.

Section VI measured sustainable behavioral intentions in daily life using 15 items, ranging from 5 = Highest behavioral intentional, 4 = High behavioral intentional, 3 = Moderate behavioral intentional, 2 = Low behavioral intentional, and 1 = Lowest behavioral intentional.

The questionnaire items were adapted from previous literature and related sustainability studies. To ensure clarity, the survey was translated into Thai using a back-translation method. The pretest reliability analysis demonstrated high internal consistency across all measurement sections. Section 3 (Part 2), which measured the frequency of media exposure to the Green Bangkok 2030 Project, showed excellent reliability (Cronbach's Alpha = 0.908, 10 items). Section 4, assessing perception of the project, also demonstrated strong internal consistency (Cronbach's Alpha = 0.914, 8 items). Section 5, measuring attitudes toward the Sustainable Development Goals (SDGs), exhibited very high reliability (Cronbach's Alpha = 0.974, 18 items). Finally, Section 6, examining sustainable behavioral intention in daily life, showed excellent reliability (Cronbach's Alpha = 0.941, 15 items). All coefficients exceeded the acceptable threshold of 0.70, indicating that the instrument was highly reliable for use in the main study.

## Results

### Summary of Descriptive Findings

This study examined Thai college and university students' media exposure, perceptions of the Green Bangkok 2030 Project, attitudes toward the Sustainable Development Goals (SDGs), and sustainable behavioral intentions. A total of 193 valid responses were analyzed after screening. Most respondents were female (63.2%, n=112), followed by male (20.7%, n=40) and LGBTQ+ students (10.4%, n= 20), providing diverse representation. The sample was young, with 94.3% (n=182) aged 18–22 years, reflecting the core university-age population. Educationally, 98.4% (n=190) were undergraduate students, indicating that the findings represented early-stage higher education learners. Income levels were consistent with student status, as 75.7%(n=146) earned below 15,000 Baht per month. The majority identified as Buddhist (78.7%, n=152), reflecting the common religious background of Thai students. Political identification varied, with many respondents choosing not to disclose (33.7%, n=65), while others identified as Independent (26.9%, n= 52) or Liberal (24.9%, n=48), suggesting a mix of perspectives that could relate to sustainability attitudes.

Most respondents lived in Bangkok (70.2%, n=135) and Pathum Thani (16.6%, n=32), reflecting the concentration of university students in the metropolitan area and



greater exposure to Green Bangkok 2030 communication. The largest academic group was Business & Management (28%, n=54), followed by Social Sciences & Humanities (16.1%, n=31) and Communication Arts (7.8%, n=15). Since academic background can influence environmental awareness, students from relevant fields may have shown stronger sustainability attitudes and behaviors.

Over half of the respondents lived in private dormitories or apartments (57.5%, n=111), followed by living with family (20.7%, n=40) and university dormitories (14.0%, n=27), suggesting that living environments may relate to daily environmental practices. Air pollution was the most noticed issue, and many students reported experiencing multiple pollution types, indicating awareness of urban environmental problems.

Regarding SDG awareness, 60.6%(n=117) were familiar with the SDGs, while 30.6% (n=59) had limited knowledge. Participation in Green Bangkok 2030 activities was low (9.3%, n=18), though most students had been exposed to related communication. Overall, the sample represented young Thai university students with urban exposure and moderate sustainability awareness, making them relevant for examining perceptions and behavioral intentions related to the project.

### Summary of Hypothesis Testing Results

Regression analysis examined the relationships among media exposure, perception of the Green Bangkok 2030 Project, attitudes toward the SDGs, and sustainable behavioral intention.

As shown in Table 1, Hypothesis 1 was supported. Media exposure significantly predicted sustainable behavioral intention ( $\beta = 0.155^*$ ,  $p < 0.05$ ), while attitudes toward the SDGs showed a stronger effect ( $\beta = 0.654^*$ ,  $p < 0.05$ ). The model explained 44.8% of the variance in sustainable behavioral intention ( $R^2 = 0.448^*$ ), which was which was considered a moderate level of predictive power. In addition, the result showed that attitudes toward SDGs were the dominant predictor. The study suggested that exposure to the Green Bangkok 2030 project significantly enhanced sustainable behavioral intentions through the mediating role of SDG attitudes. Attitudes toward the SDGs significantly mediated the relationship between media exposure and sustainable behavioral intentions.

**Table 1:** Summary of Multiple Regression Analysis of Hypothesis 1

Predictor	B	S. E	Beta	Sig.t
Media Exposure to the Green Bangkok 2030	0.140	0.064	0.155*	0.031
Attitudes toward SDGs	0.697	0.058	0.654*	0.000



**Remarks:**

**Predictor:** Media Exposure to the Green Bangkok 2030 Project among Thai college and university students in Thailand

**Mediating variable:** Attitudes toward SDGs among Thai college and university students in Thailand  
**Dependent variable:** sustainable behavioral intentional among Thai college and university students in their daily life,  $R^2 = 0.448^*$ ,  $p < 0.05^*$

As shown in Table 2, Hypothesis 2 was supported. Perception of the Green Bangkok 2030 Project significantly influenced sustainable behavioral intention among Thai college and university students ( $\beta = 0.554^*$ ,  $p < .05$ ), while attitudes toward SDGs again demonstrating a stronger impact ( $\beta = 0.626^*$ ,  $p < .05$ ). The model accounted for 44.0% of the variance in sustainable behavioral intention ( $R^2 = 0.440^*$ ), which was considered a moderate level of predictive power. The results suggested that perception of Green Bangkok 2030 strengthened sustainable behavioral intentions among Thai college and university students through the mediating role of attitudes toward SDGs, which also exerted significant effect on the relationship between perception of Green Bangkok 2030 and their sustainable behavioral intentions.

**Table 2:** Summary of Multiple Regression Analysis of Hypothesis 2

Predictor	B	S. E	Beta	Sig.t
Perception of the Green Bangkok 2030	0.543	0.060	0.544*	0.000
Attitudes toward SDGs	0.667	0.096	0.626*	0.000

**Remarks:**

**Predictor:** Perception to the Green Bangkok 2030 Project among Thai college and university

**Mediating variable:** Attitudes toward SDGs among Thai college and university students in Thailand

**Dependent variable:** Sustainable behavioral intentional among Thai college and university students in Thailand in their daily life,  $R^2 = 0.440^*$ ,  $p < 0.05^*$

As shown in Table 3, Hypothesis 3 was not supported. Media exposure did not significantly predict the perception of Green Bangkok 2030 Project ( $\beta = 0.093$ ,  $p > 0.05$ ), and the model explained only 0.9% of the variance ( $R^2 = 0.009$ ), which was considered a very low level of explanatory power. The results suggested that media exposure had no significant effect on Thai college and university students' the perception of Green Bangkok 2030 Project.



**Table 3:** Summary of Multiple Regression Analysis of Hypothesis 3

Predictor	B	S. E	Beta	Sig.t
Media Exposure to the Green Bangkok 2030	0.084	0.065	0.093	0.196

**Remarks:**

**Predictor:** Media Exposure to the Green Bangkok 2030 Project among Thai college and university students in Thailand

**Dependent variable:** Perception to the Green Bangkok 2030 Project among Thai college and university students in Thailand,  $R^2 = 0.009$ ,  $p > 0.05^*$

**Conclusions and Discussion**

The findings indicated that media exposure to the Green Bangkok 2030 Project had a significant but weaker influence on sustainable behavioral intention than attitudes toward the Sustainable Development Goals (SDGs). Media exposure primarily increased awareness rather than directly shaping behavior, which was consistent with Agenda-Setting Theory, which posits that media influence the issues individuals consider important. In contrast, attitudes toward the SDGs were the strongest predictor of behavioral intention, suggesting that students were more likely to adopt sustainable practices when they held positive attitudes toward the SDGs. The findings indicated that students' attitudes toward the SDGs had a significant influence on their sustainable behavioral intentions, highlighting both positive and negative aspects based on individual perspectives. Positive attitudes were reflected in students' strong support for sustainability practices, such as environmental protection and responsible resource use, which contributed to higher behavioral intentions. However, some students may have shown weaker or less consistent attitudes toward certain SDG-related actions, suggesting that not all aspects of sustainability were equally prioritized. This variation indicated that while overall attitudes were favorable, differences in individual opinions could affect the consistency of sustainable behaviors among Thai college and university students. Although perceptions of the project were positively associated with behavioral intention, media exposure did not significantly predict these perceptions, suggesting that communication effectiveness may have depended on the relevance of media channels and message formats to the preferences and characteristics of the target audience, particularly Generation Z university students. As digital natives, Thai Generation Z students actively engage with digital platforms such as TikTok and Instagram for live content, social interaction, and news consumption (Tan, 2022). Therefore, sustainability communication strategies should be tailored to these media consumption patterns and format preferences. A deeper understanding of Generation Z's perspectives on the SDGs is essential for policymakers



and organizations seeking to design targeted and impactful communication strategies that strengthen sustainable behavioral outcomes.

The results also emphasized the important role of perception of the Green Bangkok 2030 Project in shaping students' sustainable behavioral intentions. A positive perception of the project strengthened students' attitudes toward the SDGs, which in turn enhanced their intention to engage in sustainable behaviors. This suggested that when students clearly understood and valued the project's goals, they were more likely to develop supportive attitudes and translate them into action. However, the findings also indicated that perception was not significantly influenced by media exposure, implying that other factors, such as personal experience or direct engagement with sustainability initiatives, may play a more critical role in shaping students' views.

These findings were consistent with prior research. Kesaprakorn (2023) found that participation in sustainability events and strategic communication enhanced awareness, attitudes, and behavioral intention, supporting the KAP Model and the Theory of Planned Behavior. However, that study involved direct, interactive engagement, whereas the Green Bangkok 2030 Project relied mainly on media communication, indicating a potential limitation in media effectiveness. Similarly, Afroz and Ilham (2020) and Rosentrater and Burke (2017) identified a gap between knowledge and actual practice, showing that awareness and positive attitudes alone did not guarantee behavior change. This pattern was also evident in the present study, where barriers such as limited support, time constraints, and low perceived personal impact reduced consistent action. Overall, the evidence suggested that raising awareness alone is not enough for effective sustainability promotion. Instead, communication efforts need to also foster meaningful engagement and create supportive environments that help translate initial awareness into sustained, long-term behavior change among university students.

### Limitations of the Study

1. The sample included only Thai college and university students, which limits the generalizability of the findings to other age groups and populations.
2. The study focused only on the Green Bangkok 2030 Project, so the results may not apply to other environmental campaigns or contexts.
3. Data were collected through self-reported questionnaires, which may be affected by social desirability bias and may not fully reflect actual sustainable behavior.
4. The cross-sectional design measured perceptions at one point in time, limiting the ability to examine causal relationships or changes over time.



## Recommendations for Further Research

Further future research should use qualitative or mixed methods, such as interviews and focus groups, to gain deeper insights into how Thai university students interpret media messages and connect sustainability initiatives to daily life.

Studies should also examine additional factors influencing sustainable behavior, including environmental knowledge, civic engagement, trust in government, media credibility, and digital literacy. Exploring personal values and beliefs may further explain why some students translate positive attitudes into behavioral intentions while others do not.

Longitudinal research could track changes in attitudes and behavior as the Green Bangkok 2030 Project progresses. Cross-cultural comparisons within Southeast Asia may reveal regional differences in environmental communication. Finally, further investigation into digital media, particularly short-form and interactive platforms, may clarify whether engagement and perceived relevance are more effective than simple exposure in promoting sustainable behavior among young people.

Longitudinal studies could track changes in attitudes and behavior over time, especially as the Green Bangkok 2030 Project develops. Cross-cultural comparisons with students in other Southeast Asian countries could provide insights into regional differences in environmental communication. Finally, further research on the role of digital media, especially short-form content and interactive platforms, could clarify whether online engagement and perceived relevance are more effective than simple exposure in promoting sustainable behavior among young people.

## Recommendations for Further Application

1. This research showed that digital media exposure influences young adults' attitudes toward the SDGs and strengthens their sustainable behavioral intentions. The findings support the development of targeted, youth-centered environmental communication strategies using interactive digital platforms such as TikTok, Instagram, and YouTube to increase engagement and relevance.
2. The results indicated that sustainable behavioral intention is mainly shaped by SDG-related attitudes supported by media exposure. Policymakers should prioritize digital communication, integrate SDG education into curricula, and promote participatory approaches. Reducing practical barriers such as providing accessible recycling programs and incentive-based initiatives, which can help translate intention into actual behavior.
3. The results emphasized that communication efforts were most effective when aligned with young audience media habits. Communication practitioners should



employ storytelling, visual formats, and youth-centered digital channels such as collaboration with influencers while ensuring transparency and alignment between messages and actual environmental practices to strengthen credibility and campaign impact.

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