Stakeholder Engagement Process in Water Saving Initiatives for Sustainable Tourist Destination in Samui Island, Thailand

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ABSTRACT

This paper is based on the water-saving initiatives for sustainable tourist destinations launched by the government sector under a project called Save Water, Save Samui (SWSS) at Samui Island, a famous tourist destination in Thailand. For this project, a mixed-methodologies research approach was employed. This research aims to identify stakeholder engagement processes for water-saving initiatives. Quantitative research methods were conducted through a questionnaire-based survey, which provided supportive information from guests and hotels voluntarily involved in the SWSS project. Qualitative research methods were conducted through focus group discussions with hotel staff and in-depth interviews with representatives from hotel businesses, government officers, and locals. Findings showed that stakeholder engagement processes in the SWSS project appeared at three levels: information, response, and involvement. Lessons from the SWSS project addressed limiting aspects of the stakeholder engagement processes, including poor information dissemination, small numbers and few stakeholders involved, inconsistency across the project, and unclear incentive strategies for stakeholder engagement. To move forward, establishing a collaborative relationship among stakeholders is required to facilitate network extension, with the goal of an inclusive and collective action strategy to pursue water saving for tourist destinations in the long term.

Keywords: Samui Island, stakeholder engagement process, sustainable tourist destination, Thailand, water-saving initiatives

INTRODUCTION

For decades, tourism has been identified as one of the main industries for country development worldwide. Many countries define tourism industries as a main driving force for economic development by providing new sources of income generation, job creation and employment opportunities, and increasing investment.

Meanwhile, tourism also generates negative impacts in regions that lack proper planning and management for both host destinations' environmental and socio-economic aspects. The United Nations Environment Programme (UNEP; 2009) emphasized that, like any production sector, tourism has negative impacts and positive effects on the environment, society and economy at local, national and global levels. Although there have been positive impacts of tourism in terms of environment protection and conservation programs demonstrated recently, most previous studies have more intensively addressed the possible negative impacts of tourism activities (Aronsson, 2000; Ashley et al., 2001; Pongponrat & Chantradon, 2012; Soontayatron, 2010; Tisdell, 2001).

Recently, Burbano et al. (2022) mentioned that tourism is one of the fastest-growing industries in the world, and since its benefits can be diffused into remote regions, local communities can be attracted by apparent opportunities such as tourism-dependent economies, where market volatility, as well as social, economic, political and regulatory pressures, can put local communities at risk (Sun et al., 2022).

Furthermore, as alternative livelihoods in tourism are promoted, traditional livelihoods such as farming and fishing can be displaced, making local communities increasingly vulnerable to market volatility (Burbano & Meredith, 2020).

Saviolidis et al. (2021) confirmed that tourism is frequently promoted for its positive impacts on economies, employment and job creation; however, it has become increasingly recognized that tourism has many negative effects on the environment. Those effects range from local pressures such as the depletion of local water resources and pollution to global issues such as land-use change and greenhouse gas emissions. Local impacts are site-specific and differ from area to area, often depending on the level of development and the degree of implementation of planning and management.

Sørensen and Grindsted (2021) were concerned about problems with tourism development when growth-oriented approaches have dominated much of sustainable tourism development, which has been accused of prioritizing economic development over social and environmental sustainability. Sustainability in tourism seems to be a matter of moral judgment, ideology, and branding. Meanwhile, there is little evidence that tourism practices contribute to sustainability (Sørensen & Bærenholdt, 2020).

When a tourism destination's development has not been properly planned, or if environmental management is lacking, it may lead to serious problems for locals,

such as sewage pollution, insufficient water resources, ineffective management, and biodiversity degradation. Among various negative impacts of tourism on the environment of the host destination, the effects on water resources are one of the most relevant (Briassoulis, 2002; Deng & Burnett, 2002; Dworak et al., 2007; Essex et al., 2004; Gikas & Tchobanoglous, 2009; Gopalakrishnan & Cox, 2003; UNEP, 2009; Tortella & Tirado, 2011).

Water resources and management are important for tourism, especially hotels and resorts. Therefore, engagement with stakeholders is required, across government, public and private sectors, to convey concepts into actions for sustainability.

Previous studies have proposed new socially and environmentally sustainable green growth, steady-state and degrowth approaches to tourism development. Drivers leading tourism towards sustainability include regulatory instruments, environmental policies, management measures and technological developments; however, new business models and tourist practices are also fundamental (Sørensen & Bærenholdt, 2020).

According to Chen (2021), sustainable destinations must integrate interdisciplinary knowledge, available information, and moral responsibility. That will only be possible if all stakeholders, including relevant industries, governments, and communities, collaborate to establish more socially inclusive policies and regulations for sustainability. Stakeholder engagement is crucial for directing sustainable tourism development at destinations.

Interestingly, the tourism industry can be reshaped into a model more inclusive of the stakeholders that rely on it, including host communities. It is confirmed by Everingham and Chassagne (2020), who noted that the future of the tourism industries must be small-scale and local and benefit host communities. Moreover, Zhang and Tavitiyaman (2022) emphasized that global society demands sustainability in environmental preservation and in the community to uphold the quality of life in the long term.

The growth of the tourism industry largely runs opposite to the direction of sustainability because its development induces inequities between local communities and tourists. However, the emergence of social development is considered the integration of societal improvements and economic values creation itself, meaning the coexistence of stakeholders' equities and business development is possible by incorporating engagement and sustainability principles.

Samui Island, as a target area of the research, is one of the main tourist destinations in the Gulf of Thailand. It is the third largest island of Thailand, where tourism has been developed intensively and rapidly, from simple bamboo bungalows to high-rise buildings with modern fittings and fancy styles, from local-owned family businesses to international cooperative properties. However, like other popular island tourist destinations, unsustainable tourism development has created various socio-environmental and economic problems

in the Samui community since it became a world tourist destination (Pongponrat, 2006).

Solid waste and wastewater have become major problems challenging local authorities to find effective resource management measures. Responses include initiatives to reduce consumption and reduce volumes of waste and wasted water. In addition, studies show that tourism is increasingly recognized as a significant water-consuming sector at local, regional, and global scales. Therefore, the efficient use of water resources is now considered a key sustainability challenge for the tourism industry (Bohdanowicz & Martinac, 2007; Chen, 2021; Pigram, 2001).

Samui Island was selected as one of the island tourist destinations to implement the 'Green Island Project.' The Tourism Authority of Thailand (TAT) launched the project on behalf of the Royal Thai Government (RTG). Among the '7 Green' concepts, the 'Green Hotel Project' was launched by the Department of Environmental Quality Promotion (DEQP) under the Ministry of Natural Resources and Environment.

Sustainable Consumption and Production (SCP) initiatives were conducted under the SWITCH-Asia program in a collaboration between the European Union (EU) and the RTG. It gave government authorities at different levels more opportunities for stakeholder engagement to promote sustainability at local levels, including Samui Island.

This paper is based on a mixed-methodology research approach. It consists of in-depth interviews, focuses group discussions, and a questionnaires-based survey. It aims to identify stakeholder engagement processes in water-saving initiatives on Samui Island.

Research questions focused on how stakeholders engaged through the project. The project initiative launched by DEQP called 'Save Water, Save Samui' (SWSS) was selected as a case study to help identify stakeholder engagement processes. The hotel-sector on Samui Island was selected for the research, as hotels are one of the main consumers of water resources in the tourism industry.

Findings were that there was a broad consensus for promoting water-saving initiatives toward sustainable tourism, which would require joint efforts of different stakeholders through engagement processes. Lessons from the case study include the importance of awareness-raising activities, shared experiences, and stakeholder engagement in the sustainability project.

Understanding the awareness and roles of different stakeholders involved in the project helped further develop a collective action strategy. That facilitated wider reach and engagement through network extension, shared communication sources for information distribution, knowledge transfers, and the establishment of collaborative relationships among related stakeholders.

LITERATURE

Stakeholder Engagement for Sustainability

Since the 1990s, participation has become a buzzword in development contexts since it has several interpretations regarding purposes, forms, and implications. The nature of participation in the development process gives rise to much controversy regarding its definition and modalities since there is no single universally accepted definition. Pongponrat (2006) mentioned that people's participation could be viewed through different aspects, including "who" will be involved, in "what" roles and responsibilities, and "how" to implement it based on those identified roles and responsibilities through the process of decision-making, implementation, monitoring and evaluation, and benefit sharing on the matters that affect their livings as a collective action.

Annesi et al. (2021) mentioned that several thoracal framework models for engagement, participation and governance processes all emphasize two-way communication or open dialogue for social conversation. Therefore, terms such as citizen participation, people's participation, community participation and popular participation are used interchangeably, transforming and adapting concepts of stakeholder involvement, engagement, co-management, and social connection, including digital platforms as social contexts change.

Stakeholder engagement has become a mainstream approach for pursuing sustainable development, which requires collective action. It can be seen as an organization's ability to establish collaborative relationships with various stakeholders (Rueda-Manzanares et al., 2008). It includes a set of initiatives or practices that organizations develop to positively engage related stakeholders in activities that benefit society and the environment (Greenwood, 2007; Sulkowski et al., 2018).

Stakeholder engagement focuses on types of stakeholder groups, classification of engagement, a pattern of engagement, degree of involvement, quality of engagement, factors influencing engagement, numbers of stakeholders involved in the engagement actions, communication, dialogue, consultations, commitment, contributions, and extension of relationships among stakeholders (Garcés-Ayerbe et al., 2019; Greenwood, 2007; Herremans et al., 2016; Manning et al., 2018).

According to a systemic perspective provided by Lievens and Blazevic (2021), stakeholder engagement takes place in multiple stakeholder networks, in which value creation and appropriation are not limited to individuals or constellations of stakeholders but involve the service ecosystem as a whole, with levels of stakeholder engagement and platforms on which stakeholder engagement take place. It is supported by De Luca et al. (2022), which find that stakeholder engagement requires the involvement of stakeholders by an effective communication strategy, which encourages two-way symmetric

communication between organizations and stakeholders to generate mutual understanding and satisfaction within the relationship.

Stakeholder engagement processes include four categories: mapping stakeholders, examining engagement models, addressing stakeholders' concerns, and planning actions (De Luca et al., 2022). There is also the need to prioritize the categories of different stakeholders, as each stakeholder has different impacts on the sustainable performance of the development activities.

To align sustainability with stakeholder engagement concepts, Rosato et al. (2021) found that, despite the existence of paradoxes related to impacts from the tourism industry on natural resources, policymakers could favor the diffusion of strategies useful to encourage the transition to more sustainable practices both by local communities and tourism business. Furthermore, stakeholder engagement is also aligned with social engagement and the probability that an individual will participate in exchanges of social concerns, consisting of giving or receiving something from those with whom they interact, without any external constraint (Diallo et al., 2022). Thus, it refers to a behavioral and societal approach in line with prior studies in sustainability (Chuah et al., 2020).

When considering water consumption, especially in tourist destinations, it significantly depends upon an adequate water supply in quantity and quality (Essex et al., 2004; Krantz, 2010). Tortella and Tirado (2011) mentioned in their studies that quantifying water consumption by the tourist sector is complicated because water consumption by tourists per capita was between two and three times the local water demand in developed countries and up to fifteen times in developing countries (UNEP, 2009).

Water consumption problems are critical in coastal tourist destinations with limited water resources for domestic consumption, leading to a deterioration of water supplies and a social conflict between tourism and non-tourism sectors. Furthermore, issues arise concerning the quality of water supplies, prices, and resource allocations, complicating the sustainability of any tourist industry. Therefore, sustainable consumption and production concepts are being applied to various sectors important for country development, including water consumption in the tourism industry.

Q. Liu et al. (2022) and Sharma et al. (2020) supported that the environmental sustainability of the lodging industry is a complex, multi-scale and global challenge that requires saving water and energy, reducing carbon emissions, and waste management. In addition, there are response strategies such as applying new technologies, innovative infrastructures or appliances, and people management strategies such as promoting staff training and increasing customer engagement.

Interestingly, Kronenberg and Fuch (2021) found that a long-term notion of sustainable tourism's role as a demand-driven industry is currently debated,

and its potential to achieve the SDGs is questioned. It is particularly evident in workforce and employment conditions, which generally receive little attention in the tourism-related SDG discourse. However, Burbano and Meredith (2020) stated that this is an important potential pathway to sustainable tourism and, more broadly, to meeting sustainable development since it implies maintaining ecosystem integrity in conservation areas through low-impact, non-consumptive resource use while also providing employment, improved infrastructure, and increased business opportunities for local communities.

Y. Liu et al. (2021) mentioned that under Goal 12 of the SDGs, SCP is about doing more and better with less. Before this, SCP was introduced early to the world development agenda at the United Nations (UN) in 1992 through the Conference of Environment and Development in Rio de Janeiro, emphasizing global sustainable development. As a result, SCP was recognized as important and incorporated into the Johannesburg Plan of Implementation. The 10-Year Framework of Programs on Sustainable Consumption and Production Patterns (10YFP) was developed through multi-stakeholders and partnerships at the Rio+20 UN Conference on Sustainable Development. SCP was described as the consumption and production of services that are necessary to satisfy main needs and to ensure a better quality of life, concurrently reducing consumption of natural resources, toxic emissions, and wastes throughout all their life cycles to cause no threat to the demands of generations yet unborn (Welford et al., 1998).

It is necessary to incorporate them all in developing the consumption and production ecosystem, considering the significance of engagement among various stakeholders. It is because higher levels of consumption influence higher production levels in ecosystems consisting of multiple stakeholders. Consequently, it is important to consider education and training, knowledge distribution, raising awareness, sustainable consumer choices, societal initiatives, public campaigns, new business models for sustainability, and greater stakeholder engagement choices (Krantz, 2010; Nash, 2009).

Wu et al. (2021) emphasized that sustainable tourism policy also plays a fundamental role in leading the uptake of sustainable practices by local businesses in a destination. Nevertheless, the issue is complex because it is inevitably linked with other policies and changes at political, economic, and socio-cultural levels. Koens et al. (2021) found that developing trust and cooperation among stakeholders is key to successful planning and collaboration, which may come into play as an emergent *modus operandi* to increase social capital while facilitating strategic planning and co-production of knowledge.

In Thailand, the study by Mungkung et al. (2021) mentioned that SCP is related to sustainable lifestyle and education, which has been incorporated into many national strategies. However, the main challenge is to convince people to follow it. The

Department of Environmental Quality Promotion (DEQP) has been implementing the "Green for ALL" program, which includes encouraging schools to develop a curriculum on environmental education. Moreover, DEQP has initiated the Green Card to stimulate the purchase of eco products. The SCP activities in Thailand on sustainable procurement are well established and developed continuously.

Samui Island and Water Resources Conditions

Samui Island, located in southern Thailand, is ranked among the top island tourist destinations in Thailand and worldwide, with more than one million visitors annually. Geographically, it is Thailand's third-largest island occupying a total area of 252 sq. km. Local people fished and farmed coconuts there long before tourism became a major income-generating source leading the Island into massive tourism development (Pongponrat, 2006). Moreover, Samui Island also experienced high rates of immigration, as people moved to find income-generating opportunities in the area. It caused problems due to an overuse of local resources, including water (Pongponrat & Chantradon, 2012).

On Samui Island, the registered population is 69,820, with roughly 200,000 unregistered people. Seven sub-districts cover 43,770 households (KohSamui City Municipality, 2020). Approximately 3,000 visitors visit Samui Island daily, both Thais and foreigners. There are 465 registered hotels with more than 16,000 rooms available for visitors. It comprises 276 small-scale hotels (less than 30 guest rooms), 168 medium-scale hotels (more than 30 but not exceeding 100 guest rooms), and 21 large-scale hotels (more than 100 guest rooms). Most tourism activities concentrate around Chaweng beach, Lamai beach, and BoPhut beach and generate around 562,436 USD annually (KohSamui City Municipality, 2020). Samui City Municipality Office records that residents of Samui Island require water consumption of around 4,434 cubic meters per day; meanwhile, visitors require around 5,106 cubic meters per day. Although Samui Island has several water resources, such as natural water from underground and swamp forests, fresh water in reservoirs, and domestic water supply provided by Provincial Waterworks Authority, water shortage is a major problem on the island. It is due to the rapid increase in water consumption by locals and the tourism sector without proper water management. In addition, an increasing number of unregistered residents has also become a contributing factor to water shortages. It is because governmental infrastructure, planning and budgets, may have failed to foresee such many of these people on the Island.

Consequently, water shortages affect all Samui Island's people, including locals, visitors, and immigrants, especially during the dry season around March to May. In response, many hotel businesses use underground water to supplement water supplies and sometimes buy water from a private water supply, which is costly.

The Samui community, consisting of government authorities, the tourism business sector and locals, has been actively involved in projects related to environmental restoration and conservations launched by different stakeholders.

Samui Island and the SWSS Project

As Samui Island is developing to be a sustainable tourist destination, support policies and plans have been provided by different organizations. Sustainable consumption and production (SCP) promotions are one of Thailand's six key strategies in the 12th National Economic and Social Development Plan.

The Office of Natural Resources and Environmental Policy and Planning (ONEP), under the Ministry of Natural Resources and Environment (MONRE), has collaborated with the EU, through the SWITCH-Asia Program, to implement the SCP Roadmap 2017-2036 in Thailand. The core strategies promote and enhance sustainable consumption and production within society. Consequently, various policies, programs, and projects have been established and implemented for country development to pursue sustainability, at different levels, especially at the local level.

One of the major stakeholders related to SCP in Thailand is the Department of Environmental Quality Promotion (DEQP), under MONRE. It is responsible for providing SCP knowledge, raising awareness on resource efficiency through promotional campaigns, and providing rewards for private sectors. For example,

DEQP developed a program called Awareness Raising on Sustainable Consumption and Production to raise awareness of the water shortage on Samui Island. It was implemented on the Island as a pilot project in 2014 and has continued with several activities. With this program, the campaign project called Save Water, Save Samui (SWSS) was launched, aiming to support sustainable tourist destination development through public awareness raising and motivate tourism businesses, visitors, and locals to get involved with water saving on Samui Island.

Within the SWSS project, public relations strategies were pursued, and campaign materials with the monkey mascot logo were distributed to ten hotels voluntarily involved in the project during a pilot period. These campaign materials included posters, door hangers, brochures, hangers-on mirrors, billboards, small tabletop signs, small tent cards, beach chair covers, mini-information cards, and CDs for an introduction of Samui water-saving initiatives, with briefings on tips like how to save water while staying in a hotel. Public relations tools were distributed to targeted hotels for years, with support from campaign projects from time to time, along with a monitoring and evaluation process for improvement.

METHODOLOGY

This research aims to identify stakeholder engagement processes in water-saving initiatives. The initiative project called Save Water, Save Samui (SWSS) was selected as

a case study as it is a pilot project on water saving for a sustainable tourist destination launched by DEQP. Research questions focused on how stakeholders were involved through the engagement process. Both quantitative and qualitative methods were employed, based on a mixed-methodology approach for data collection and analysis.

A questionnaire survey was conducted voluntarily with 154 guests who had stayed in the hotels involved in the SWSS project. It was to examine water consumption behavior and awareness of water saving during their stay in the hotels and as supportive information for analysis.

Meanwhile, focus group discussions were conducted with thirty-eight hotel staff employed at operational levels, exploring their awareness and perception of the SWSS project. Each focus group allowed one hour for discussion among six to seven members, facilitated by the academic advisory team. A series of in-depth interviews were also conducted with sixteen key informants, consisting of six government officers and ten management-level representatives from targeted hotels.

Quantitative data analysis was applied by breaking down descriptions statistically, providing an overview of awareness and perceptions. Meanwhile, content analysis with a narrative approach was conducted for qualitative data analysis to identify stakeholder engagement processes and lessons learned. Finally, validation of the research results was conducted through a triangulation approach for cross-analysis of data collected from the questionnaire survey, focus group discussions and in-depth interviews.

FINDINGS

Stakeholder Engagement Process in SWSS

The SWSS project presented a collaboration among sectors, including DEQP and Samui City Municipality, hotel businesses, and visitors. This section has three sub-sections addressing three major stakeholders and their engagement process in the water-saving initiatives for Samui Island.

Government Engagement. 'Save Water, Save Samui Campaign Day' was an event to raise public awareness by engaging locals and visitors in various water-saving activities. It also facilitated public engagement with the government sector. Campaign Day was a two-day event at the community open space in the popular Bo Phut area and accommodated a condensed population of locals and visitors.

The Campaign Day was organized jointly by the DEQP, the Samui City Municipality and the academic advisory team. The aim was to raise awareness and disseminate knowledge concerning water resources and conservation for locals and visitors.

Large posters around the area provided brief but clear information about Samui's water consumption and tips on water saving. In addition, there was a set of street performances called 'spirit of water' to present stories about the value of water resources, how water resources can be

polluted, and life without insufficient and clean water resources.

There was a painting activity called 'art from the heart,' which engaged people to paint a monkey magnet in their way and take it home as a souvenir from Samui Island. Another engagement activity was based on a co-creation concept called 'saying out loud.' This activity encouraged people to write down their opinions and suggestions, on water consumption problems and solutions for sustainability, on blank large-sized clothes, all together in different languages and pen colors. These co-creative works were exhibited at other public events on Samui Island to promote and extend the SWSS project's impacts.

Based on the findings from the interviews with representatives from government authorities, stakeholder engagement is required to involve people in a local development project. Policies and plans for developing projects and activities implemented for locals were announced through various communication channels, such as government websites and social media.

However, involvement from many people was limited due to time constraints; they did not receive the information, or they misconceived their expected roles as local citizens who need to support local development.

Some interviewees discussed needs for stakeholder engagement, such as,

Samui relies intensively on the tourism business where time is money, and running a business is the most important thing of concern. Nevertheless, the government needs to find ways to raise awareness on water problems and identify concrete and possible solutions.

Another opinion also,

we need to work as a team for Samui in the long term, exchange knowledge and ideas, and find an appropriate way to work together for water saving. It is slow to implement since we must start from people's perceptions and awareness.

Government authorities mentioned a need to integrate knowledge about water-saving concepts and practices, creative and innovative ideas for engaging in awareness-raising activities, and collaboration among stakeholders to pursue water consumption and production for sustainability.

Hotel Business Engagement. There were ten hotel businesses voluntarily involved in the SWSS project. They used the campaign materials provided by DEQP, later re-produced by the hotels on their own, in different hotel areas, such as placing a campaign door hanger on each guest room door, putting a campaign hanger on a mirror in each bathroom, putting a campaign tent card on a desk in each guest room and on each table in the restaurant and café areas within a hotel. The Campaign CD was also played around hotel lobby areas to promote the SWSS project. In addition, the academic advisory team trained hotel staff in basic water-saving activities that could be implemented in different hotel operations.

From the in-depth interviews with the hotel owners, most hotel owners thought that the government authorities should be a center for collaboration among stakeholders. Samui City Municipality was mentioned because of its main local government role in the area. Some sample excerpts from the interviews include, "The municipality has both authority and budget to enforce a water consumption project. The question is, "why don't they put more consideration on the water issue since it is critical on the Island now?" or

> If the municipality gave a clear direction on how we can deal with the water shortage in Samui, we would follow because it will also benefit our hotel. Nevertheless, we do not know exactly what a water-saving plan is for Samui.

It indicates that the local authority plays an important role in local development. Therefore, the municipality needs to announce concrete plans and clear directions to tackle critical issues, such as water shortages, for public awareness and collaboration among stakeholders.

The hotel owners also commented on the SWSS project, which was a good project to raise awareness of water saving at Samui and help save hotel operational costs. However, the project covered only a small group of hotels. They commented that it should be extended to cover a wider group of targets, including other tourism businesses. "Water saving requires a consensus. Everyone needs to be informed, included, and supported. Some hotels keep working on water savings, but other hotels, tour operators or restaurants

[do not]. Of course, local people need to get involved, too."

In the interviews, hotel owners also mentioned that many other hotel-owner friends did not know about this project. They were concerned about why their friends did not engage in the project. Their friends also were unaware of other critically needed water-saving projects on the Island, "How can tourism survive if we have water shortages? Samui is isolated from the mainland, which limits resources available". Some hotel owners also suggested that there should be a project that calls for broader community participation among different sectors and stakeholders on the Island, such as the hotel association, the tourism association, NGOs, local interest groups, women's groups, and youth groups.

Findings from the focus group discussions among hotel staff, at an operational level, such as front officers and housekeepers, indicate that in their observations, visitors from Europe were more concerned about water saving when compared with Thai, Chinese, and Indian visitors. Therefore, more awareness should be directed to these target groups differently to target cultural, behavioral and language differences. So far, the supply of campaign materials promoting water saving has been limited and not widely distributed within the Samui community, "We are happy that our hotels are involved in the SWSS project. It is good for Samui" and "we are proud of our hotel when guests provide good comments on the ongoing water saving activities."

The hotel staff also mentioned in the focus group discussions that "we got a brief training on water saving guidelines for each function, which helps us understand more about how to save water. It is something we can do for our household as well." Furthermore, the hotel staff agree with the SWSS project and are willing to follow the guidelines. However, they also mentioned that there should be an open platform to share ideas and comments on water saving within the hotel for more practical or the best practices in different functions. "Somehow, what we learn in training does not match the work conditions, in reality, so we think it would be great if there is a chance for us to exchange opinions for better operations."

Findings show that the hotel staff agrees that the hotel owner's decisions are very important for water-saving policies and guidelines. The decisions made should be translated and conveyed to the operational level staff to help them understand the directions of the hotel management, which will be helpful for better implementation of water savings.

Visitors Engagement. Visitors engaged in the Campaign Day, and hotel guests staying at the ten targeted hotels, were asked about their water consumption behaviors and perceptions about water saving. Questionnaire surveys were randomly and voluntarily conducted with guests, with different languages used in the questionnaires (English, German, Russian, and Chinese). There were 154 completed questionnaires; most respondents were female (53%), with most aged between 20 and 30 (43.7%). The education levels of most respondents were bachelor's degrees (71.5%), and most were visiting Samui Island for the first time (51%). The tourist nationality most represented was Chinese (48.2%). A profile of respondents is presented in Table 1.

Table 1

Profile of respondents (n = 154)

Items	Number of respondents	Percentage
Gender		
Male	72	47
Female	82	53
Age		
20 years old and below	8	5.5
21–30 years old	67	43.7
31–40 years old	40	25.7
41–50 years old	21	13.3
51–60 years old	10	6.3
Above 60 years old	8	5.5

Table 1 *(Continue)*

Items	Number of respondents	Percentage
Level of Education		
High school	35	22.8
Bachelor's degree	110	71.5
Above bachelor's degree	9	5.7
Major Tourist Nationalities		
Chinese	74	48.2
British	24	15.8
Swedish	14	9.3
Russian	29	18.6
Others		8.1
(e.g., India, Japan, German, Korea, etc.)	13	
Times of Visiting Samui		
First time	78	51
2–3 times	53	34.3
4–5 times	12	7.8
More than five times	11	6.9

Source: Field survey

Based on the findings in Table 2, visitors were aware of the water shortage in Samui Island during the dry season from the news. Most respondents (70%) noticed SWSS campaign materials around the hotel area and in their rooms. The most noticeable campaign material was the tent card, which they could easily find anywhere around the hotel area. The tent card was easy to read and gave some tips which were helpful for them to support water saving. Of the respondents, 37% said the campaign materials and related awareness raising would help change their water-saving behaviors.

Table 2

Visitors perceptions of water saving (n = 154)

Items	Number of respondents	Percentage
Awareness of water shortage problem on Samui Island		
Aware	111	72
Not aware	43	28
Notice SWSS campaign materials around hotel areas		
Noticed	108	70
Not noticed	46	30

Table 2 *(Continue)*

Items	Number of respondents	Percentage
Read the Green-Hotel Practice Manual (available in Guest Room)		
Read	79	51
Did not read	75	49
Involvement in Water Saving Practice		
Involved	82	53.2
Never involved	72	46.8
Idea on SWSS Campaign to Change Behavior		
SWSS helped to change behavior for water saving	57	37
SWSS does not help to change behavior for water saving	97	63

Source: Field survey

When asked about water consumption behaviors during their stay in the hotel, most respondents said that they take a shower (84.2%). Meanwhile, some respondents said that they use the bathtub (13.8%), and a small number used both methods for washing (2%). The findings also show that only some respondents use a glass of water for brushing teeth (19.2%), while most of the respondents turn off the water during their shaving (34.6%). Only a few respondents never turn off the water while soaping in the shower (9.3%). Many respondents reuse their towels (31.1%) and use the bed linen for more than one night (32.5%).

Table 3

Visitors' water consumption behavior (multiple answers)

Item	Number of respondents (n = 154)	Percentage
Taking shower	130	84.2
Using bathtub	21	13.8
Taking a shower and using a bathtub	3	2
Using a glass of water for brushing teeth	30	19.2
Turning off water during shaving	53	34.6
Never turn off the water while soaping in the shower	14	9.3
Reusing towels for more than one day	48	31.1
Using bed-linen more than one night	50	32.5

Source: Field survey

Table 3 above presents information to support an overview of visitors' water consumption behaviors during their hotel stay and provides ideas for developing future water-saving campaigns (Table 3). Findings from the questionnaire survey show that SWSS campaign materials could help make visitors aware of water-saving initiatives.

However, it was too early to evaluate changed behaviors. Changing water-saving practices requires consistent campaign promotion and monitoring to assess behavior change over time. It also requires involvement from hotel sector participants and their staff, who can help educate and persuade visitors about water-saving practices, and locals to conduct water conservation as a collective action for the sustainability of the local tourist industry and their way of life.

DISCUSSIONS

Based on the research findings, the SWSS project was launched by the government sector collaboration between DEQP and the Samui City Municipality to introduce water-saving initiatives for a sustainable tourist destination. It generated an open platform for stakeholder engagement to include the hotel business, visitors, and locals, with knowledge transfer facilitated by the academic advisor team.

The government sectors prefer involvement based on their authority. Through a voluntary evaluation process, DEQP could provide certification for those hotel businesses involved in the project. That certification can then be used for hotel marketing campaigns and materials. In addition, it creates opportunities to generate social recognition through government news and other media channels; hotels can use it to benefit their business regarding brand, image, and positioning concerning water consumption.

Throughout the project, knowledge and training provided to hotel staff by the academic advisory team also helped develop their capacity. The academic sector is an important stakeholder engaged in the project. They provide knowledge and training inputs while monitoring the project's progress (Annesi et al., 2021). Greenwood (2007) supports these findings and Sulkowski et al. (2018), who found that when organizations develop a set of initiatives or practices to engage related stakeholders in activities positively, it provides benefits to society and the environment (Chuah et al., 2020; Diallo et al., 2022).

Therefore, collaborative relationships could be established through this stakeholder engagement process for local network formulation, knowledge transfer, exchange of ideas and experiences, and as a resource for further development projects. In addition, an informal stakeholder network was also formed through the SWSS engagement process for further collaboration (Koens et al., 2021; Wu et al., 2021).

Figure 1 presents stakeholder engagement with key components within different stages, comprising inputs, processes, and outputs of the SWSS project.
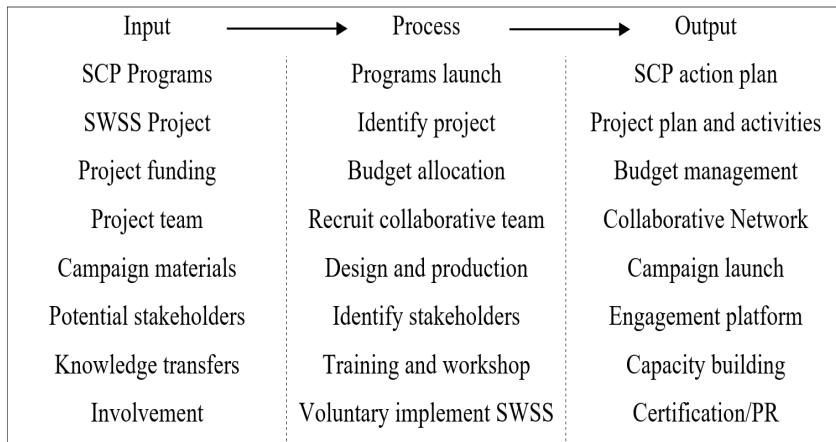
Input	→	Process	→	Output
SCP Programs		Programs launch		SCP action plan
SWSS Project		Identify project		Project plan and activities
Project funding		Budget allocation		Budget management
Project team		Recruit collaborative team		Collaborative Network
Campaign materials		Design and production		Campaign launch
Potential stakeholders		Identify stakeholders		Engagement platform
Knowledge transfers		Training and workshop		Capacity building
Involvement		Voluntary implement SWSS		Certification/PR

Figure 1. Stakeholder engagement key components

The SWSS project also presented the abilities of organizations such as government sectors to establish collaborative relationships with various stakeholders in this research. This is supported by studies of Rueda-Manzanares et al. (2008). On the other hand, guests or visitors of the hotel also received opportunities to be involved and engage in water consumption directly since they were counted as the main group of water consumers. Water saving requires actual actions. Therefore, guests can conduct it directly, providing interactive engagement opportunities for environmental conversation.

Regarding the level of stakeholder engagement addressed by Morsing and Schultz (2006), the information strategy was implemented through public awareness campaigns and events, along with campaign materials established or used in hotel areas. Training opportunities were also provided to the hotel staff, aiming to raise awareness and enable knowledge transfer for water-saving practices. Response strategies were conducted through different approaches, including recruitment for hotels participating in the SWSS project and collaboration with the academic advisory team. As mentioned earlier, the level of involvement was conducted through various activities such as training, knowledge transfer or public campaign launches. Network formation also occurred among various stakeholders (De Luca et al., 2022; Lievens & Blazevic, 2021).

DEQP and the academic advisory team regularly conducted a monitoring and evaluation process to identify and confirm the project's positive results, problems, and constraints for future improvement. Meanwhile, the potential to engage more stakeholders in the project and identify future directions was discussed.

Figure 2 presents stakeholder engagement processes at different levels

Level of Involvement	Stakeholders Engagement			
	Government	Hotels	Visitors	Locals
Information distribution	Government announcement	Meeting with government	Campaign materials indicated knowledge and tips for water saving	Public awareness campaign days
Knowledge transfers	Training provided by the academic advisory team			
Response	Authority enforcement	Voluntary involvement	Voluntary involvement	Voluntary involvement
Implementation	Collective action			
Monitoring & evaluation	Academic advisory team conducted project evaluation through a questionnaire survey and interviews with stakeholders			

Figure 2. Stakeholder engagement process

and stages, from information distribution, training, response, and implementation of the SWSS project, to monitoring and evaluation.

According to theories and concepts of stakeholder engagement, research on the SWSS project provided concrete examples of how a stakeholder engagement process operates, from when it was launched to the implementation of water-saving initiatives involving different stakeholders at different stages.

There were no tax incentives or government subsidies. However, SWSS leveraged stakeholder engagement processes to indicate collaborative relationships among stakeholders. It included voluntary-based participation in the SWSS project and implementation by hotel businesses to support sustainability. In return, stakeholders could develop better relationships with the government and other businesses in their local area for future support. Meanwhile, hotels can use their participation in the SWSS project to support their claims and marketing strategies as a 'green hotel,' which is increasingly important for mainstream sustainable tourism.

For SWSS, a limited number of local hotel businesses engaged in the project. The public campaign for raising awareness was also limited to a certain area and ran over only two days. Consequently, public information dissemination was limited.

Continuing the project would be difficult without consistent practice, training, and activities to maintain awareness, understanding of current conditions, and knowledge of implementing water-saving strategies matched with experimental conditions.

It relates to informal enforcement by government sectors, as it relies on stakeholders participating voluntarily. Leveraging social capital alone to influence engagement is not enough to pursue a long-term water-saving project since other factors are also required to stimulate engagement and economic benefits--concrete and consistent guidelines to follow; continuously supported activities for hotel business, visitors, and residents to participate; and water-saving practices and consensus actions to pursue; while increasing capacity to implement engagement across various stakeholders.

CONCLUSION

The SWSS project presented the way stakeholders can implement water-saving initiatives, for sustainable water consumption and production, at tourist destinations. Reasons for stakeholder engagement in the project were also identified. However, it was clear that social capital factors likely influence stakeholder engagement. The lessons learned from the project include limiting aspects of this stakeholder engagement, including poor initial information dissemination, the small number of stakeholders involved, and inconsistency.

The research affirms that better stakeholder engagement is required for SCP to deliver water-saving outcomes. This approach is recommended to utilize resources from government sectors (i.e., authority to call for public engagement, budget allocation to support, information and directions dissemination), hotel businesses, visitors, and residents' sectors (i.e., knowledge, understanding, awareness, network, co-creation, collaboration) to work collectively for their local, sustainable development. In addition, establishing a formal network for sustainable water consumption; and promoting collaboration between government sectors and the public in wider areas, with upscaling extension, should be implemented.

Once this formal network is established, comprehensive plans detailing the roles and responsibilities of each stakeholder sector will be distributed. The network would function as a co-creator for idea-sharing, decision making, implementation, and monitoring and evaluation stages for more effective and active water consumption and production strategies and practices. In addition, important water-saving knowledge would be provided to the public frequently through various communication channels suitable for visitors and locals.

Although there are still challenges to implementing SWSS or similar sustainable consumption projects, SWSS showed a practical change to processes when stakeholders engage for sustainability beyond just debating theories. It addressed requirements for an extension strategy,

including information distribution, concrete incentives, public relations, social recognition, and even enforcement. As a result, it is anticipated that more stakeholders will be recruited for engagement and participation in collective actions that can help to sustain water-saving activities while supporting sustainable tourist destination development in the long term.

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