



TASC

[Take Actions for Social Change 2025]

ASEAN-Japan Youth Forum

Action Plan Report

TAKE ACTIONS
FOR SOCIAL CHANGE



Outline of the Project

This program is organized by the Japan Foundation, the ASEAN University Network, and the Center for Southeast Asian Studies, Kyoto University, endorsed by the ASEAN Secretariat, with the aim of fostering good relationships among the member countries.

Today, the world faces a variety of challenges, and it is imperative that we work together to solve these problems by sharing wisdom and cooperating with one another, transcending nationalities and our respective positions in society. In addition to working together, it is becoming increasingly important for each individual to be motivated to solve our common challenges.

This program provided an opportunity for young people from ASEAN countries and Japan to meet, learn, and work together while encouraging each participant to reflect, cooperate, and implement actionable ways to address global issues.

Organized into teams, participants explored the theme through a series of online programs as well as field trips to the Philippines and Japan. Through dialogue and collaboration with teammates, participants developed plans of action to create a better world and then presented their initiatives at the end of the program.

Students are expected to broaden their perspectives, increase their capacity for acceptance and tolerance of diverse cultural environments, and further develop their motivation and skills to act as global leaders who can bring about meaningful social change.

Theme “Envisioning a peaceful and better world in 2050”

Theme for TASC 2025 “Plastic Waste”

Participants 28 students (9 countries: Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Thailand, Vietnam, and Japan)

Organizer The Japan Foundation

Co-Organizers The ASEAN University Network, Center for Southeast Asian Studies, Kyoto University

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3 Steps to a Greener World

- An educational approach to encouraging pro-environmental behavior to the youth

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I Introduction

A. Background of the Problem, Rationale

Plastic pollution is no longer just an environmental issue; it is a global crisis that demands immediate attention. The latest report from the United Nations Environment Programme (UNEP, 2023) warns that without systemic change, plastic pollution will nearly triple by 2040. This escalation poses a severe threat not only to marine life but also to terrestrial ecosystems and human health. Although we have seen advancements in recycling technologies and policy bans, waste continues to accumulate in our communities. This suggests that the problem isn't just about infrastructure; it is deeply rooted in human behavior and daily habits.

A key challenge we face is the gap between "knowing" and "doing." Many people know plastic is harmful, yet they continue to use it irresponsibly. Heidbreder et al. (2019) note that habits and social norms are often stronger drivers of consumption than simple awareness. This supports the Theory of Planned Behavior, which argues that sustainable actions stem from deep-seated attitudes and perceived control, not just information (Ajzen, 1991).

Therefore, effective education must go beyond simply transferring knowledge; it must actively shape values (Frick et al., 2004). This project aims to address this challenge by focusing on high school students. Adolescence is a pivotal developmental stage where individuals are forming their ethical frameworks. Research confirms that environmental values instilled during these formative years are strong predictors of future behavior (Evans et al., 2007). By engaging with students at this specific stage, "3 Steps to a Greener World" is designed to build a generation that is not just informed but behaviorally committed to a sustainable future.

B. Insights from Philippines & Japan Visits

With the Philippines being both an agricultural and coastal country, it was highly relevant to learn and explore how plastic waste has become a pervasive problem—from the islands to the

cities. It was eye-opening to learn how plastic pollution affects communities in different ways and at different scales. Initiatives and collaborations exist, but due to insufficient attention, implementation, and damage caused by natural disasters, the programs do not become sustainable. After visiting Olango Island's mangroves, landfills, eco-parks, fluff fuel facility by SM Guun and creative upcycling initiative by JunkNot, we observed how the Filipino people are striving for a greener and healthier Philippines. Here, the group also observed their determination and strength to overcome these challenges despite the circumstances they face because these strategies are a product of their hard work. Among the visits, the most impactful visit was to Baseco, where we met a community that turned trash into a source of livelihood within the neighborhood. They shared their inspiring story that helped us understand the conditions they were in and proved that even simple solutions—such as upcycling used oil into soap or selling reworked wallets—can create meaningful change and uplift the community. They've found ways to involve the community and show that it is possible to create change, to solve problems, and create opportunities for other people, even at the household level. Their harmonious relationships within the community reflected their love and care for their neighbors. They worked together to improve the living conditions they faced, and their efforts to reduce, reuse, and recycle trash were a product of this collective cooperation.

During our visits to Japan, we were able to explore a number of remarkable recycling facilities in Tokyo, Kyoto and Osaka which highlight Japan's impressive integration of sustainability into daily life. Beyond advanced technologies for waste separation and resource recovery, what stood out was the cultural mindset which treats recycling as a collective responsibility. One particularly impactful topic discussed was horizontal recycling practices, such as the recycling of storage containers and transparent cleaning covers. Tokyo has been financially supporting private sector efforts that align with these sustainability goals. Notable examples are shared takeout and delivery containers and programs that promote the use of reusable bottles by tracking individual usage through

smartphone apps. Finally, the lectures linked plastic waste to marine pollution, showing how household waste can travel from urban areas through rivers and eventually reach the ocean. Another notable visit was to the Satoyama SDGs Lab in Kyoto, where it was an excellent example of making environmental awareness more understandable for younger students through creative means. The lectures from the Japan Trip taught us that tackling environmental challenges requires ongoing efforts, public support, adequate funding, and strong institutional structures to drive meaningful progress. The trip also showed the value of ASEAN-Japan cooperation as it demonstrated how friendship and knowledge can be exchanged hand in hand with technical learning and a supportive environment.

With the culmination of visits from the Philippines, Japan and the cultural exchange of other ASEAN delegates, the group's focus became clear: to shed light on how environmental awareness and sustainability can be introduced, implemented and sustained for young students. This way, they are able to gain a better understanding of the problem earlier and participate in creating their own solutions. The group observed that regions can have the best equipment and facilities, but a prominent similarity between the countries was the involvement of the community, the people. While the group recognizes that youth involvement is important, the members realized that an education-based approach could amplify the students' voices as the next changemakers. By facilitating a program that invites all types of learners to participate in environmental sustainability awareness and collaborates with the countries' organizations and systems, this project builds on those strengths of community partnership to establish routines and habits that can achieve a healthier future with education.

II The Action Plan

A. The Proposed Solution

The proposed solution, Three Steps to a Greener World, is an education-based initiative designed to address the growing issue of plastic waste by strengthening environmental awareness and responsible behavior among high school students. By targeting this group, it aims to build early awareness of plastic waste issues while empowering students to influence their schools and communities. Education is chosen as the core strategy because it addresses the root cause of plastic pollution: a lack of awareness and understanding, while also encouraging sustainable behavioral change.

This project operates through three interconnected steps:

- (1) an interactive textbook to build foundational knowledge,
- (2) a hands-on learning camp to strengthen understanding

through experience, and

- (3) a student-led competition to encourage real-life application and innovation with learnings from this camp.

Each step is designed to reinforce the previous one, ensuring a continuous learning journey that transforms awareness into meaningful action. Students learn through the three steps, fostering routines, habits and awareness for their future.

1. Textbook - Step 1

The first step of the project is the development of an interactive, story-based textbook that provides students with fundamental knowledge about plastic waste and microplastics. A textbook allows complex topics like plastic waste and microplastics to be explained step by step, starting from basic concepts and gradually building deeper understanding. Unlike short-form media, which often delivers information in fragments, a textbook presents content in a logical sequence, helping students connect causes, impacts, and solutions clearly. The textbook covers key topics including the sources of plastic waste, how plastics break down into microplastics, environmental and health impacts, and practical solutions to reduce plastic pollution. The content is made for the age group of high school students. The textbook includes reflection questions and small activities that encourage students to relate the content to their daily lives and local environments. This approach helps students understand that plastic waste is not only a global issue but also a problem that exists within their own communities.

In terms of implementation, the textbook will be developed in collaboration with environmental experts and educators to ensure accuracy, relevance, and alignment with educational standards. An English master version will be produced first and later translated for use in different countries. The textbook will be distributed in both digital and printed formats, allowing it to be used flexibly in schools, learning camps, and independent study. Using this textbook can help enhance one's knowledge of environmentally responsible behavior.

2. Learning Camp

PlastiCamp – a learning camp – is an early initiative proposed to implement this textbook module for high school students prior to the proposal of this textbook into official academic structure, to see the effectiveness of this knowledge transfer about environmental issues, especially plastic waste. Instead of integrating it directly into the main academic curricula, the group strategizes that a school camp held for 3 days will be a medium for students to learn about plastic waste and the environment. The three-day teaching camp will be

organized by university students and carried out in line with the objectives of the textbook modules, which cover topics such as the fundamentals of plastic and its impacts on humans and the environment, creative innovations using waste, and effective management strategies for addressing plastic pollution. To promote inclusivity and quality education, high school students from all districts will be invited to participate.

The first day of the camp will be about enhancing the understanding of plastic fundamentals. Students are expected to deepen their understanding of plastic waste and microplastic as well as their impact on the environment and human health through educational talks by experts. Students will also join upcycling workshops with the recycling hubs to raise awareness that they can creatively craft from plastic waste while reducing the waste. This will broaden their perspective to focus not on eliminating plastic but on maximizing the use of waste.

On the second day, students will be introduced to innovative solutions and environmentally conscious tour experts in mitigating plastic waste such as handcrafts, eco-blocks, industrial products, 5Rs, eco campaigns and biogas generation from waste for instance. This showcases the efforts being made around the world to address plastic waste by drawing on local creativity and capabilities. Moreover, in the innovation lab, students will brainstorm in groups and propose ideas—based on what they learned during the camp—on how to make their school more environmentally friendly and promote recycling awareness among their peers. Through this innovation lab, they can not only enhance their skills and creativity but also empower their critical thinking through engaging discussions with each other.

On the final day of the camp, an upcycling competition will be held in which students create unique items—whether something with economic value, an art piece, or a STEM-related project—using the waste they collected at their own schools. Furthermore, all the participants will be awarded the title of “Guardian of the Earth” where this acknowledgement will make them more responsible for taking care of the environment and indirectly encourage their friends at the school to take part in the green efforts to recycle and reduce plastic waste.

3. Competition

To apply what students have learned from the textbook and the learning camp, the competition will allow students to use their skills in promoting pro-environmental behavior. The #GenZPlasticChallenge is a participatory video competition in which students work collaboratively in groups to produce a one-minute video. The central theme of the challenge is “Let’s discover how creative, aesthetic, and fun sustainability can be”. The program aims to create a space where young people engage in dialogue and produce visual media that translate

sustainability ideas into concrete, everyday actions, such as reducing waste, choosing low-carbon options, and participating in local environmental initiatives.

The challenge evaluates submissions based on four key criteria. The first is Creativity, followed by Aesthetic Expression, Reflection, and Message. Through these criteria, the competition emphasizes expressions that reflect participants’ personal values and interpretations of environmental issues, rather than standardized or prescriptive narratives. To recognize the diverse strengths of participants, the competition features three awards.

- ▶ Eco Mind Award - Strong awareness and Understanding
- ▶ Aesthetic Impact Award - Creativity & Storytelling
- ▶ Sustainability Hero - Inspirational Videos that have power for behavioral change

Award recipients are offered the opportunity to participate in an environmentally focused tour, linking learning with real-world experience. This award structure allows participants to deepen their understanding of sustainability through direct engagement rather than abstract discussion alone. The initiative is also connected to visits to sustainable companies and organizations across different countries. By encouraging participants to share what they learn through these exchanges, environmental awareness can be communicated beyond national borders. As a result, sustainability values are expected to spread not merely as individual efforts, but as a movement shared by an entire generation.

The effectiveness of youth-oriented video competitions is supported by existing examples. For instance, the United Nations Framework Convention on Climate Change [UNFCCC] Global Youth Video Competition received over 180 submissions from 77 countries, and the winning videos accumulated more than 100,000 views on YouTube (UNFCCC, n.d.). This case demonstrates that youth-produced visual content can achieve both international visibility and social influence. Similarly, the #GenZPlasticChallenge has the potential to harness young people’s creativity and digital media skills to communicate environmental issues to a wider audience.

B. Ensuring the sustainability of the project

A distinctive feature of this program is its “green investment cycle,” where learning, production, and peer-led support are designed to compound over time. Participants gain environmental literacy and visual storytelling skills, publish content with clear behavioral calls to action, and then transition into alumni roles as “Guardians of the Earth.” Guardians follow a structured three-part model, advocating (amplifying messages through networks), mentoring (supporting project design and execution), and acknowledging (recognizing behavior-based milestones), to ensure that each cohort leaves behind reusable resources and a stronger support system for the next. This

reduces isolation and increases the likelihood of sustained pro-environmental practice.

In addition, the program incorporates mechanisms like uniforms and medals to visibly recognize individual efforts and contributions. For high school students in particular, having their actions socially recognized can significantly enhance self-efficacy and confidence. Rather than viewing environmental action as a duty or burden, participants are encouraged to see it as a source of pride and a meaningful social role. In this mentorship model, the alumni and participants are able to foster involvement and change that embraces camaraderie, development and diversity of ideas, and collaboration among youth across nations. In this way, the #GenZPlasticChallenge and its surrounding initiatives combine intergenerational support with a culture of recognition, fostering a sustainable and enduring environmental movement.

III Implementation

Implementation of this project will take eight months to complete in an academic year. The project is divided into four phases:

Phase 1: Resource Mobilization Phase acquiring all resources necessary to operate the project. (3 Months)

1. Volunteer Recruitment - Partnering with youth organizations to recruit volunteers to help with the project operations, mainly those who are willing to assist with the Learning Camp. This is where the organizers will reach out to experts and professionals for the learning textbook.
2. Financial Resources - In support of the project, selling upcycled clothes as uniforms; this form of fundraising will help fund the operations of the project. Inspired by a company called EcoLine Clothing from India, EcoLine Clothing is a brand that transforms used PET bottles into fibers to make T-shirts and sportswear where each shirt uses several recycled bottles and helps save both water and energy (Patel, 2019).
3. Partnerships - The project also aims to partner with companies who share the same advocacy and have relations to the project, particularly those who retail school supplies, printing, sustainable packaging, along with environmental organizations who seek to share environmental awareness and protection. These partnerships would engage wider audiences to help support the program in their own way.
4. Collaboration Support - This will include working and collaborating with departments or ministries of

education to integrate this as a school program. Pilot programs will be done with schools before the full implementation.

Phase 2: Preparation Phase (3 Months)

1. The creation of the interactive textbook; It will undergo data gathering, writing and creating content, proofreading and checking with experts.
2. This phase will also include preparations for the learning camp where volunteers will strategize the implementation of curated lesson plans from the interactive textbook.

Phase 3: PlastiCamp - Learning Camp/Workshop for Plastic Waste (1 Month)

This phase is where the learning camp will commence, and 3-5 days will be allotted for the implementation of the learning camp, where days will have dedicated modules and activities based on the flow of the textbook. Distribution of books will also be done a week before the learning camp.

- ▶ Day 1 = Module 1 & 2
- ▶ Day 2 = Module 3
- ▶ Day 3 = Innovation Labs, Exhibits & Start of Competition

Phase 4: Post-Processing Period (1 Month)

In this phase, students will be given three weeks to create the videos for the competition. After this, the judging period will commence, and the selected winners will be invited for the sustainability tour.

IV Expected Outcomes & Impacts

A. Vision for 2050

One of the most pressing challenges in ASEAN and Japan would be plastic waste and this is a constant issue within households, schools and communities and requires a collective contribution to combat this. Current waste management practices are fragmented, recycling systems are inconsistent, and environmental education is often absent from curricula. Hence, this program is established to eliminate the gap between the present situation and our vision for 2050, which highlights the urgent need for youth-centered initiatives that normalize sustainability as part of everyday life. By 2050, the vision is to cultivate a generation of youth who lead environmental change across ASEAN and Japan and make it sustainable. Schools are visualized as emblems of sustainable practices, student-led initiatives shaping national waste policies and communities actively reducing plastic waste through education and innovation. The main mission is to empower students to take responsibility for their environment making

sustainability second nature.

B. Short Term Outcomes

For the assessment of evaluation and sustainability, these are short-term outcomes that can help in measuring the effectiveness of the program. First, on the measurable results of the program, this will include 2 sections through post project tests and engagement activities. First, post project tests include surveys to test students' abilities to identify different types of plastic and their impacts. Second, questionnaires are there to understand students' willingness to reduce single-use plastics in daily life. It is hoped that students will achieve that at least 75% of students are familiarized with the understanding of different types of plastic, waste methods, and environmental care. Engagement activities are performed through workshops and competitions. The PlastiCamp workshops will result in upcycled products and school-level initiatives, and the #GenZPlasticChallenge will ensure full participation through creative video submissions. It is hoped that at the first round of participants, at least 40 students will submit their entries for the program, showing their motivation in their advocacy for protecting the environment and reducing plastic. To keep students motivated, prizes such as the Eco Mind Award, Aesthetic Impact Award, and Sustainability Hero Award will recognize outstanding contributions, reinforcing engagement and encouraging continued practice.

C. Long Term outcomes

There is no doubt that sustained implementation will establish systematic impact which can be seen in the next five years. The textbook can be integrated into school curricula as an extensive and engaging learning activity that complements students' regular academic studies. In addition, the alumni network of "Guardians of the Earth" will serve as mentors for new cohorts, ensuring continuity and long term sustainability. There will be student-led projects and competitions which will eventually shape local policies when seeing this as impactful and supported by partnerships with schools and ministries of education. By 2035, there will be practices such as reusable bottles and waste segregation as this will be the main objective

and normalized in schools, and by 2050, ASEAN-Japan youth will be recognized not only as leaders in reducing plastic waste but contributing to measurable declines in single-use consumption. This project shows how immediate gains evolve into long-term cultural and institutional change for youths and sustainability.

V Samples of the Materials:

[A. Textbook Sample \(Layout & Module Content\)](#)

[B. Video Competition Sample](#)

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TraSure

(Trash to Treasure)

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I INTRODUCTION

A. Background

Plastic waste is a shared challenge across ASEAN countries, especially in tourist destinations. For example, in Vietnam, the demand for plastic products has increased at the same pace as tourism development (Tran, Pham, & Nguyen, 2020). Inspired by all the lessons learned through TASC, we decided to create souvenirs made from recycled plastic to raise awareness through tourism while connecting environmental impact with social realities. Each souvenir is attached to a “TraSure” eco-label that displays concise environmental information, including the estimated amount of plastic waste diverted during production. The label also features a QR code that links to our “TraSure” official website providing more detailed data on material sourcing, recycling processes and overall environmental impact. By embedding sustainability data into the product itself, the souvenir functions not merely as merchandise but as an educational medium that transforms purchasing behavior into a conscious environmental act.

We chose recycled souvenirs not as an alternative idea, but as a structural solution. In tourism, consumption is inevitable. Instead of trying to stop consumption, we redesign it. By transforming plastic waste into souvenirs, we reconnect consumption with responsibility and make tourists part of the circular system.

Plastics are a necessary component of our daily lives due to their wide range of usage. Plastic waste from thermoplastic and thermoset is not easily degraded and could become abundant by producing primary environmental contamination (Damayanti et al., 2022). In the case of Southeast Asian countries, these countries produce over 1.5 million metric tons of mismanaged plastics annually. Malaysia, Thailand, Vietnam, the Philippines, and Indonesia ranked in the top 10 countries with the highest generation of mismanaged plastics (Ng et al., 2023). In the case of Japan, the amount of plastic consumption per person is greater than that of other countries (Hoshika & Saito, 2020). To illustrate how our model could work in practice, we take

Shibuya, one of the most visited districts in Tokyo, as a case study. According to an investigation by Shibuya City, where they analyzed the amount and types of waste in Shibuya, Koshukaido, Harajuku, Ebisu, and Yoyogi in 2025, Shibuya had the biggest amount of waste such as tobacco products and plastic wrappers (Shibuya City, 2025). Furthermore, Shibuya spends billions of yen annually on the budget for combatting street drinking or intentional littering. The ward mayor mentioned that broader measures were needed against overtourism in an interview conducted on December 18th, 2025 (The Nikkei, 2025). Considering all these issues, Shibuya City Tourism Association started a “Sustainable Shibuya Project” where they present a new way of tourism considering crowds of tourists, and etiquette violations. They are planning to aim at empowering a new way of sightseeing that can contribute to local economics and protect the livelihood of local people (Shibuya City Tourism Association, 2023). From all this information, it can be said that Shibuya is worth paying attention to in terms of the fact that they are conducting sustainable projects to combat overtourism and waste issues.

B. Inspiration from TASC

During our visit to Olango Island in the Philippines, we witnessed plastic waste being directly disposed of into mangrove ecosystems, threatening wildlife and revealing the consequences of low environmental awareness. In Baseco Compound, we observed residents manually sorting plastic waste for very low wages. Although their work sustained the recycling system, they received little recognition or fair compensation. These experiences showed us that the plastic crisis is not only an environmental issue but also a social and economic one, where responsibility and value are unevenly distributed.

In contrast, our visit to Kameoka City in Kyoto demonstrated that environmental initiatives can be sustainable when they are integrated into daily life and supported by collaboration between local government and private companies. We learned that sustainability must be economically viable and socially engaging.

Inspired by these lessons, we propose transforming locally collected plastic waste into souvenirs, such as keychains representing tourist destinations like Shibuya. By adding value within the community rather than exporting raw recyclable materials outside, this model reduces unmanaged waste while generating fairer economic returns and restoring dignity to waste workers.

C. Vision for 2050

1. Tourism Without Waste

- ▶ Every major tourist destination participating in the “Trash to Treasure” (TtT) initiative to form eco-friendly touristic products and benefit the most from waste.
- ▶ Plastic waste is collected, sorted, and upcycled within the same city and benefits the city itself.

2. Awareness Against Waste Problems

- ▶ People are raised with environmental awareness through environmental activities provided by TraSure and actively take part in our waste upcycling process.
- ▶ Tourists tend to buy more eco-friendly souvenirs as they follow our main campaign “If you buy our product, you save the world”.

created this campaign to make a strong call to action for locals, together with tourists, to be aware of environmental issues caused by overconsumption of plastic products in certain areas.

TtT is planned to be launched in a very broad area with two main phases: the initiation phase and the expansion phase. Cities in the initiation phase are based on countries of origin of the TraSure team members, including Indonesia, Japan, Malaysia, Thailand and Vietnam. These countries are visited by tons of tourists every year, which results in a massive amount of plastic waste. That is why we aim to start our project in the touristic cities of these countries first. The expansion phase will begin once the projects launched in the initiation phase are stable.

Table 1. Targeted Cities of TraSure Project

Phase	Targeted Cities		Starting time
	Country	City	
Initiation	Thailand	Bangkok	Late2026
	Malaysia	Penang	Late2026
	Vietnam	Hanoi	Late2026
	Indonesia	Jakarta, Bali	Late2026
	Japan	Tokyo, Osaka	Late2026
Expansion	All ASEAN touristic cities		2028

This project starts with our small team engaging in public relations activities. We operate as an NGO that specifically implements this project in several ways, as follows:

1. Promoting Environmental Activities for Locals

This is a campaign that engages the local people in our first targeted cities, as shown in table 1, which are mostly touristic cities to focus on the plastic waste problems caused in their own cities. Examples of our campaign activities include:

- ▶ Big Cleaning Activity: Local people are welcome to apply as volunteers to take part in our project as city protectors by collecting plastic waste in several areas of the city together with us. Participants receive money in return based on the weight of waste they collect.
- ▶ Household Sorting: Local people are welcome to apply for membership to receive a waste sorting bag, sort plastic waste at home, and bring the bag to us. They receive money in return for the recyclable plastic waste.

2. Collaborating with Schools and Institutes

TraSure is not only a temporary project but also aims to raise awareness among the next generations. Our project intends to partner with elementary schools, high schools, institutes and universities in the targeted cities to create extracurricular activities for students to take part in waste management and raise awareness regarding plastic waste.



Figure 1. TraSure Logo

A. TraSure & Trash to Treasure (TtT)

There are several environmental campaigns that are being launched in societies worldwide. Mostly, these campaigns are voluntary and aim to engage locals and help either clean the society or promote some green projects. However, we find that some campaigns lack sustainable impact on the community, and local people do not care about environmental issues or campaign's goals once the project is finished. We thought of something different and came up with “Trash to Treasure”.

Trash to Treasure is the campaign that serves as the core of our initiative launched by our organization “TraSure”. We

Once we gather all the plastic waste from local people, we subsequently upcycle the waste and generate new products which are intended to be several kinds of souvenirs.

B. Upcycling Process

The upcycling of used plastic into new local iconic souvenirs is a key strategy for circular economy enhancement (Yoshida et al., 2026). Upcycling involves coordinated steps that convert waste materials or trash into valuable products, a treasure which has a higher value than its original form (Boonpracha et al., 2024). The process begins with waste collection, where plastics discarded by tourists are gathered from tourist spots such as beaches, city streets, and cultural landmarks (Abdulkadir et al., 2025). Following this, the collected plastics will be sorted according to their types to ensure better quality during processing (Alaghemandi, 2024). After sorting, the plastic undergoes cleaning to remove contaminants.

Clean plastics are then mechanically shredded into smaller flakes, and melted plastics are then molded into shapes that reflect local culture or iconic symbols and landmarks (Al-Salem et al., 2009). To enhance the aesthetic appearance, the products formed are polished and painted, making them visually appealing (Singh et al., 2017). Lastly, a 'TraSure' tag with QR code feature that links to our official 'TraSure' website is attached as an environmental protection label. It serves as a powerful platform to spread global environmental awareness by communicating sustainability messages directly to users (Van der Velden et al., 2014).

This upcycling approach transforms a simple souvenir from waste into a global symbol of sustainability. As tourists come from diverse cultural and national backgrounds, the recycled souvenir enables sustainability messages to reach a wider global audience when brought back to their home countries. The attached eco-label includes concise environmental messages and may indicate the amount of plastic waste diverted through the production of the souvenir, highlighting the positive environmental impact of purchasing recycled products. By presenting the tangible benefits of their action, consumers become more aware of their contribution to plastic waste reduction efforts. In addition, the QR code links to an official website available in both English and the local language of the region, ensuring clear understanding across different areas.

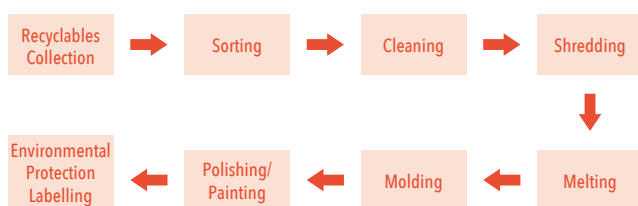


Figure 2. Flowchart of Upcycling Process Turning Plastic Waste into Iconic Souvenirs

C. Expected Outcomes

Through this endeavor, TraSure aims to deliver scalable impact aligned with the United Nations Sustainable Development Goals (SDGs). Our initiatives are designed to foster environmental improvement and responsible consumption, specifically focusing on:

- ▶ SDG 11 (Sustainable Cities and Communities): Strengthening community recycling capabilities by promoting inclusive and sustainable initiatives through workshops, events, and capacity building.
- ▶ SDG 12 (Responsible Consumption and Production): Reducing plastic waste footprint through efficient resource management and waste reduction strategies that empower both locals and tourists through a collaborative approach.
- ▶ SDG 15 (Life on Land): Protecting and restoring clean environments to ensure the preservation of local heritage and tourist attractions.

Therefore, this initiative stresses its focus on managing plastic waste produced by tourists by empowering local communities to recycle it into sustainable tourist souvenirs, thus has the following grand goal to achieve:

1. Eco-Awareness Tourist

This project fosters transformative ecological behavior by incentivizing tourists to purchase eco-friendly souvenirs, or omiyage (お土産), crafted from recycled waste. According to the conceptual framework proposed by Paul and Roy (2023), which suggests that emotional engagement with a place can minimize ecological footprints and enhance appreciation for local authenticity, this initiative seeks to build a similar sense of connection between tourists and their destinations. By purchasing a souvenir generated from the site's own waste, tourists do not merely buy a product; they are also participating in a narrative of preservation and sustainability (Wu et al., 2020). This tangible link between the visitor and the site's environmental health transforms the souvenir into a symbol of personal responsibility, engaging them and promoting environmental awareness and actions, reinforcing sustainable consumption habits.

2. Community-Led Waste Management and MSME Integration

Through strategic collaboration with local stakeholders, this project establishes community-managed waste banks designed to directly bolster Micro, Small, and Medium Enterprises (MSMEs) (Utomo et al., 2025; Rai Utama et al., 2025). The implementation follows a structured three-phase approach:

- ▶ Stakeholder Engagement: The process begins with high-level consultations and "pitching" sessions with local

representatives and government bodies to align the movement's objectives with local policies and situations.

- ▶ **Needs Assessment:** A comprehensive baseline study is conducted to gather tangible data on the local plastic waste issue, ensuring that subsequent strategies are data-driven and context-specific.
- ▶ **Inclusive Capacity Building:** Local participation is then solidified by providing technical expertise and waste-processing skillsets to the community.

By ensuring these capabilities are inclusive and accessible to all demographic groups, the project will drive the transition from external intervention to internal empowerment. Further support, delivered through specialized workshops, marketing assistance, and targeted funding, fosters a sense of local ownership. Consequently, this participatory framework not only ensures cleaner surroundings but also secures the long-term socio-economic resilience of the community (Utomo et al., 2025; Saavedra et al., 2018).

3. Lucrative Circular Economy

The project establishes a lucrative circular economy by implementing a closed-loop system where discarded local materials are upcycled into high-value artisan products. In this context, a circular economy refers to a restorative system that replaces the “end-of-life” concept including all activities of Reduce, Reuse, and Recycle in production, circulation, and consumption (Lacy & Rutqvist, 2016). To elevate a recycled item, such as a keychain, into a high-value souvenir, the project emphasizes “eco-luxury” craftsmanship and limited-edition designs that highlight the material's unique origin. A specific expected outcome of this model is the diversification of local income streams; for instance, by training community members to transform plastic debris into specialized heritage-themed merchandise, the project creates specialized green jobs that convert environmental liabilities into economic assets without depleting natural resources (Utomo et al., 2025; Utama et al., 2025).

D. Ecosystem Map

An ecosystem map is a visual representation that illustrates the key stakeholders, relationships, and flows of resources, information, and value within a system (Interaction Design Foundation, 2021). It helps clarify how different actors interact and influence one another within the project environment. In the TraSure initiative, the ecosystem map functions as an analytical tool to identify stakeholder roles, material flows (from waste collection to product distribution), and potential leverage points or bottlenecks before each implementation stage is detailed.



Figure 3. Ecosystem Map of the “Trash to Treasure” (TtT) Initiative

Stage 1: Collection

Plastic waste (especially PET bottles and HDPE containers) generated by domestic and international tourists, as well as local residents, is collected in Shibuya Ward. Shibuya was selected as the pilot site for the Trash to Treasure (TtT) initiative due to its high concentration of visitors, dense commercial activity, and persistent litter challenges associated with overtourism (Sekarani & Widiandari, 2022). Local authorities support this stage by providing collection infrastructure such as recycling bins and organizing periodic clean-up and collection drives. To encourage participation, modest financial incentives are offered, as prior studies indicate that economic rewards can positively influence household and community recycling behavior (Okon Recycling, 2025).

Stage 2: Sorting

Collected plastics are transported to community workshops or designated sorting facilities. There, students and youth volunteers separate the waste by material type (for example, PET bottles, HDPE containers, and similar thermoplastics). Thermoplastic materials like polyethylene (PE) and PET can be melted and reshaped into new products. By engaging students

in this sorting process, the program turns it into a hands-on learning activity that raises environmental awareness. This educational engagement also ensures that only high-quality, properly sorted plastics proceed to the upcycling stage, which improves processing efficiency and the quality of the final products.

Stage 3: Upcycling

At local upcycling stations, the sorted plastics are thoroughly cleaned and mechanically processed. Using equipment for shredding, melting, and molding, the discarded plastics are transformed into new products. For example, recycled PET bottles can be melted and remolded into functional or decorative items, such as household goods or souvenirs, demonstrating creative reuse of waste materials. Local artisans or social enterprises often collaborate with youth participants to design these products, highlighting how valuable new items can be created from what was once litter.

Stage 4: Education and Engagement

Education and community engagement underpin the entire TtT ecosystem. Local governments, schools, community organizations, and NGOs collaborate to deliver workshops, exhibitions, and public events that promote proper waste sorting and upcycling. Importantly, multilingual outreach is employed to ensure international visitors understand local waste norms, while youth participants disseminate learned practices within their households and communities (Chen, 2025).

Stage 5: Product Distribution

Upcycled products are distributed through local retailers and tourist outlets. Tourists purchase eco-friendly souvenirs, generating revenue that sustains the program. Although the material loop is not fully closed because products may leave the locality, the environmental values embedded in these products extend the project's impact globally (Japan-Property, 2023).

III DISCUSSIONS

A. Challenges

Several challenges were identified throughout the action plan design and proposed implementation. One major challenge is the quality of plastic waste and contamination. Plastics discarded by tourists are often mixed with food residue and non-recyclable materials, which further complicates the sorting and cleaning processes, making these processes more labor intensive and costly. This challenge may be attributed to the inconsistent waste sorting behavior among tourists from different backgrounds with different environmental protection

consciousness (Hu et al., 2024).

Moreover, it is critical to secure community engagement and long-term participation to ensure the steady collection of plastic feedstocks for the upcycle processing, thereby enabling stable production and overall 'Trash to Treasure' supply chain. Although financial incentives and extracurricular activities can alleviate the shortage of plastic collection by attracting involvement from some local residents and students, sustaining long-term engagement requires a shift of community perception towards plastic waste, seeing it as a shared responsibility rather than a burden (Yoshida et al., 2025).

In addition, technical limitations are also the barriers. Low advancement in technology, especially in Southeast Asian regions, constrains the souvenir transformation process since plastic upcycling typically involves advanced machinery and specialized technology for high-quality production. Advanced sorting technologies such as near-infrared (NIR) spectroscopy, triboelectric sorting (TBS) and triboelectrostatic separation enable rapid and precise plastic separation but they often possess low accessibility for some underdeveloped regions, which may affect the scalability of the upcycling process (Alaghemandi, 2024).

B. Further Plans

To address operational challenges, "Trash to Treasure" will strengthen plastic input quality and collection reliability through standardized sorting and cleaning at drop-off points, reducing contamination and improving downstream processing efficiency (Hopewell, Dvorak, & Kosior, 2009). Participation will be stabilized by combining modest incentives with recurring school- and community-led workshops, as long-term waste initiatives are more durable when they are embedded in local institutions and social networks (Iyer, 2001). In parallel, the project will pursue partnerships with universities, social enterprises, and private-sector actors to access fabrication expertise and appropriate machinery, acknowledging that limited processing capacity often constrains recycled plastics to low-value outcomes (Almack, 2017).

For scaling beyond Shibuya, the model will be adapted to ASEAN contexts by tailoring collection logistics, product design, and communication to local waste profiles, tourism patterns, and available infrastructure. This regional direction aligns with ASEAN priorities to reduce plastic leakage, strengthen collection systems, and enhance value creation from recycled materials (ASEAN Secretariat, 2021). To ensure sustainability, "Trash to Treasure" will institutionalize multi-stakeholder governance with local authorities and retailers and progressively integrate upcycling education into youth programs to maintain a continuous pipeline of trained volunteers and community buy-in (Almack, 2017).

IV CONCLUSION

Over the years, the plastic waste problem generated by the tourism sector has posed a complex challenge that intersects with environmental degradation, social equity, and urban governance. Through the development of the Trash to Treasure (TtT) initiative, this project demonstrates that plastic pollution in highly touristic urban areas such as Shibuya requires an interdisciplinary approach that bridges community participation, economic incentives, education, and sustainable design. Drawing from meticulous observations and benchmarking across ASEAN countries and Japan, the project views plastic waste not merely as an environmental burden but as a resource that can be revalued through circular economy principles.

By transforming plastic waste into locally made souvenirs, Trash to Treasure bridges waste management with tourism, enabling tourists to shift from passive contributors to active participants in sustainability efforts. At the same time, the initiative empowers local communities by embedding environmental education, skill development, and economic value within the waste management ecosystem. The proposed upcycling process and ecosystem model illustrate how collaboration between authorities, communities, and individuals can create a system that sustains both environmental and socio-economic value.

While challenges related to waste quality, technical capacity, and sustained community engagement persist, this project demonstrates feasible pathways for adaptation and scaling across the ASEAN region. Trash to Treasure presents a practical model that integrates waste reduction, community participation, and value creation within urban tourism systems. Looking toward 2050, the initiative aims to support tourist destinations where plastic waste is managed locally, transformed into meaningful products, and embedded within everyday tourism practices as part of a more sustainable and inclusive urban environment.

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[MANIBU WARASHI]

Manibu's Ecoquest

FLIP THE CARD TO CHANGE THE WORLD (Wanna do this!)

MemberBaginda Muhammad Rif'an Abdillah
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Marquez Fea Bambina TrinidadPhimsiya Thongyoo
Nguyen Tien Thanh**I Introduction & Background**

In 2020, about 52 million tonnes of microplastic waste moved from managed systems into the unmanaged environment (land, water, open burning). In addition, approximately 22 million tonnes remained as unburned debris in the environment, at risk of transport to rivers and seas (Cottom et al., 2024). This alarming figure underscores the urgent need for youth-led initiatives, particularly collaborative, project-based approaches. Through field trips and lectures conducted in the Philippines, the Manibu Warashi team identified a key insight: children aged 8–12 represent an ideal target group because younger children often show larger attitude shifts than older students after environmental programs, suggesting they are a particularly responsive group for shaping long-term values and norms (Lamanauskas, 2023; Liefländer & Bogner, 2014). Furthermore, barangays (the smallest administrative units) in the Philippines, particularly Manila, offer a highly suitable setting for implementing an educator-supported environmental education tool. Barangays serve as primary implementers of government visions, projects, and undertakings for the community, so empowering barangays can lead to stronger and more resilient communities (Bautista, 2015).

II Insights from ASEAN & Japan Visits

During the field visit to the Philippines, the project team observed the alarming scale of plastic waste pollution and various efforts being made to address it. Public-private partnership accompanied by advanced technology played an important role in converting plastic waste into by-products such as bricks, promoting circular economy. At the community level, barangay residents showcased their resilience and adaptability by organizing upcycling initiatives that transform plastic waste into functional products such as bags and wallets.

However, despite these promising efforts, plastic waste continues to accumulate at a concerning rate. This suggests that technological innovation and community-based initiatives alone are not sufficient to tackle the root causes of the problem. The persistence of improper waste management practices points to deeper issues related to environmental awareness, attitudes, and long-term behavioral change.

Through these observations, the Manibu Warashi team recognized that youth-led initiatives, particularly those centered on environmental education, are essential in addressing this gap. By strengthening environmental literacy and fostering responsible habits from an early age, education can serve as a preventive and sustainable approach to reducing plastic waste in the long term.

In addition, Japan presented a model of effective waste management driven by both strong public discipline and government support. Citizens routinely carry their personal waste due to limited public bins and cultural expectations, while categorized waste separation systems ensure consistent sorting into specific categories. Japan's success in waste management illustrates the impact of systematic approaches supported by public participation.

Moreover, the initial idea has been developed based on experts' feedback during Japan Visit in four different prefectures including Tokyo, Kyoto, Osaka, and Nara. These observations directly influenced Manibu EcoQuest's design, emphasizing that sustainable change requires early environmental education. Among various educational tools, board games were intentionally selected to introduce environmental issues at a young age, as they encourage face-to-face interaction, discussion, and collaborative decision-making. These elements are essential for fostering social responsibility and collective environmental awareness among children. Unlike digital games, analogue board games do not require electricity, internet access, or personal devices, making them more accessible and adaptable for schools and barangay communities.

Through this interactive and engaging format, the project aims to cultivate awareness, responsibility, and sustainable habits, helping to shape a future generation that is

environmentally conscious and prepared to address waste-related challenges.

III Project Overview: MANIBU WARASHI

Manibu's Ecoquest is an innovative educational board game designed to transform environmental awareness into an engaging adventure for children. Drawing inspiration from the Japanese spirit *Zashiki Warashi*, which symbolizes harmony and protection, the game features a hero mascot named “*Manibu*” who guides players to become guardians of nature. (Figure 1)



Figure 1.

The effectiveness of *Manibu Warashi* lies in its shift from traditional instruction to play-based learning. Rather than relying on guilt or boring lectures, the game uses immersive storytelling and mechanics to make sustainability exciting. Through an 80-space journey, players encounter real-life scenarios that involve meaningful trade-offs rather than obvious moral binaries. For example, in a shopping scenario, a player may realize they have forgotten their reusable tote bag. They can either accept a plastic bag which leads to gaining Waste Points but conserving limited resources or spend Eco Coins to obtain a sustainable alternative.

The game empowers children to view protecting the planet not as a chore, but as a collective victory. (Figure 2)

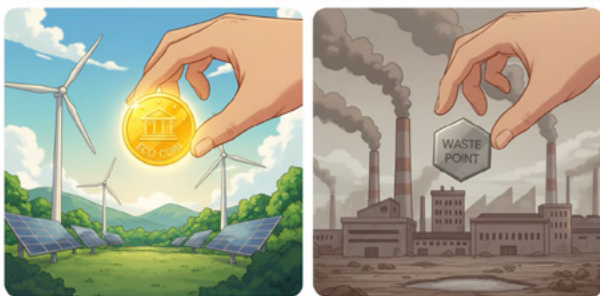


Figure 2.

IV Game Concept and Design

Inspired by *The Game of Life* where players traverse the board from childhood up to adulthood, *Manibu Warashi: EcoQuest* allows players to progress through 80 stages that represent everyday life choices and personal growth. However, instead of measuring success through wealth or career status, the game reframes achievement around responsible decision-making, environmental awareness and collective impact. This encourages players to reflect on how small daily actions contribute to larger environmental outcomes.

The board is designed as a clear, linear path that is easy for young players to follow. Different zones on the board represent real-world environments such as homes, schools, communities and natural spaces. Visual elements such as eco-icons, color-coded spaces and simple illustrations help players quickly understand the type of action required at each stage (Figure 3). The use of recycled materials for the construction of the board, tokens, cards, manual book and dice reinforces the game's sustainability message while keeping production affordable for schools and community use.

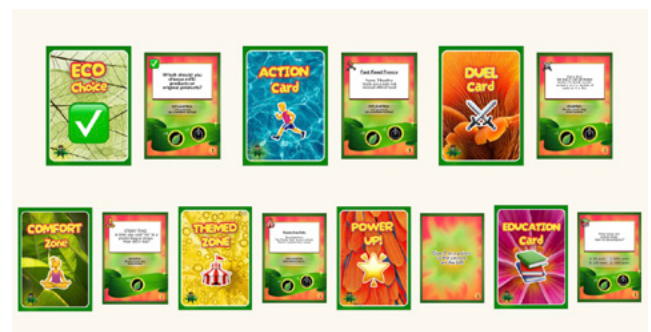


Figure 3.

Learning goals are embedded directly into gameplay mechanics. Players earn Eco Coins for positive actions, such as reducing plastic use, and accumulate Waste Points for harmful behaviors. This system makes abstract environmental consequences visible and easy to understand. Action Cards, eco-dilemmas, quizzes and mini games introduce real-life scenarios that require players to think critically and discuss possible outcomes. Cooperative elements, including shared challenges and group decisions, promote teamwork rather than competition.

V How to Play

A. Components in the board game

1. An 80-space game board
2. Player pieces

3. Different decks of cards

- Eco Choice Cards – Present realistic everyday decisions (e.g., plastic bag vs. tote bag) that require players to consider environmental trade-offs and consequences.
- Action Cards – Introduce short mini-challenges or quick quizzes that reinforce sustainability concepts through active participation.
- Duel Cards – Encourage peer interaction through brief competitive challenges or environmental fact battles.
- Comfort Zone Cards – Prompt players to reflect on positive eco-friendly behaviors, allowing them to reduce accumulated Waste Points.
- Themed Zone Cards – Provide special challenges focused on specific environmental themes, offering opportunities to earn additional points.
- Power-Up Cards – Grant strategic advantages that players can save and use later, adding a layer of planning to the gameplay.
- Education Cards – Feature short eco-quizzes designed to strengthen knowledge while maintaining an engaging learning experience.

4. A manual book

5. Foldable dice layout



Figure 4.

B. How to Play

- Setup:** Place the board in the middle. Everyone picks a piece and starts at Step 0 with 0 Eco Coins and 0 Waste Points. Shuffle the cards and place them nearby.
- Move:** On your turn, roll the dice and move your piece forward.
- Act:** Look at the symbol on the space you land on and pick the matching card.
- Decide:** Follow the card's instructions. You will make real-life choices or complete mini challenges. Good choices earn you Eco Coins, while bad ones give you Waste Points.
- Win:** The game ends when someone reaches Space 80. Subtract your Waste Points from your Eco Coins; the highest score wins.

VI Comparison with Other Educational Games

Several educational board games aim to teach values and awareness to young players. For example, *Pura no Kimochi* focuses on emotional understanding and empathy, encouraging children to reflect on feelings and social interactions through simple, print-friendly gameplay. Similarly, *Go Goals!* introduces the United Nations Sustainable Development Goals to children aged 7–11, using a broad, goal-based approach to raise awareness of global issues such as poverty, health and education.

Manibu Warashi: *EcoQuest* differs from these games by offering a more focused and localized learning experience through relating the questions in the game to the Southeast Asian lifestyle. Rather than addressing sustainability in a general sense, Manibu Warashi: *EcoQuest* centers specifically on plastic waste and environmental habits that are highly relevant to Southeast Asian contexts. For example, since Southeast Asian countries are nearer to the equator, they generally experience higher humidity than Western countries. Thus, lifestyles differ in terms of the activities that are feasible in these countries. This makes the learning content more relatable to players' daily lives. The life-journey structure also allows players to see how repeated small decisions accumulate over time, reinforcing long-term thinking and responsibility.

Another key advantage of Manibu Warashi: *EcoQuest* is its cooperative as well as competitive gameplay. While many educational games emphasize individual progress, Manibu Warashi: *EcoQuest* encourages teamwork through shared challenges and collective outcomes, reflecting real-world environmental problem-solving. In addition, the use of Eco Coins and Waste Points provides immediate, visible feedback, helping players clearly connect actions with consequences as well as providing a competitive feel for the players. Designed using recycled materials and suitable for bulk production, *EcoQuest* is well-suited for classroom and community deployment. Overall, *EcoQuest* stands out by combining localized environmental education, cooperative learning and reflective gameplay in a format tailored specifically for tweens.

VII Action plan and Roadmap

A. School Implementation

- Short-Term (Launch & Training): Engage 10–15 schools, reaching 300–600 students (Grades 3–6). Begin with Game Mechanics Training, where teachers and staff play the game first to fully understand the rules before

facilitating student sessions.

2. **Mid-Term (Implementation & Feedback):** Over 11 weeks, conduct 90-minute sessions with students in groups of 5–6. Each session includes 45 minutes of gameplay (2–3 rounds), facilitator observation, and reflection discussions. Weekly evaluations and small celebration rewards support engagement and continuous improvement.
3. **Long-Term (Sustainability & Expansion):** Measure success through student engagement and environmental understanding. If outcomes are positive, expand to new locations while maintaining high material quality and safety standards (Figure 5).

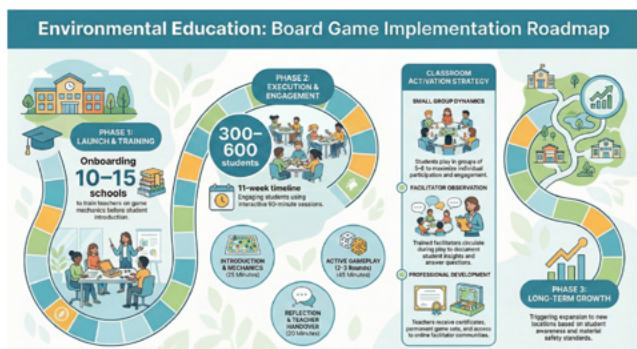


Figure 5.

B. Community Implementation

The project focused on communities in order to expand the board game's reach to more people through gameplay events. The objectives are to expand children's awareness and knowledge related to plastic waste and promote changes in daily actions through our board game. The project presumes collaboration with organizations related to environmental problems, plastic waste and education, as well as local organizations (Barangays in the Philippines).

1. **Pre-events:** First, the project starts with identifying a couple of groups per province and contacting them directly via e-mail or documents to explain and distribute our game. Then, the team and collaborators plan the event details. In addition, the project plans to recruit volunteers from university and high school students to involve young people in our project.
2. **Ongoing events:** Public facilities and schools are expected to serve as venues. In the events, children are divided into small groups (4–6 children per board), and they play the board game with facilitators who are collaborators.
3. **Post-events:** After the event, participants and collaborators evaluate events and the board game through questionnaires, then the board game is improved.

Another plan is to hold a workshop for heads and representatives of education and environmental departments as a central community activation initiative. The objective is to promote dissemination of laws, policies and knowledge using board games. Through the workshop, broader communication is promoted.

VIII Expected Outcomes

A. Short term outcomes

Raising awareness of environmental issues among children

There are 7 card types in the board game as listed below and the board game contains many elements. Therefore, children are able to learn about the current state of plastic waste and the environment and think by themselves about problems while having fun.

1. **Eco Choice Cards** - Children can learn about eco-friendly choices
2. **Action Cards** - Children can reflect on their daily life and get some advice
3. **Education Cards** - Cards provide fact information
4. **Duel cards** - Cards provide quizzes related to plastic waste
5. **Comfort Zones** - Cards promote talking and sharing about this issue
6. **Power-Ups** - Some cards provide easy steps to think about this issue
7. **Themed Zones** - Cards encourage children to think about daily actions and steps

B. Intermediate outcomes

Expanding the use of board games for diverse stakeholders

1. **Family members** - Children will talk with them after playing the board game. Shifting to eco-friendly daily habits requires their awareness and help.
2. **Teachers** - Classes in which the game is played are conducted by teachers. There is potential to develop follow-up classes and projects related to plastic waste at school.
3. **Collaborators** - They help organize local events to play board games. (NGO members, local organization members, high school and university students etc.)

C. Long term outcomes

Changes in various fields

New laws and rules, systems related to plastic waste and education etc.

IX Evaluation Methods

The evaluation is conducted by questionnaires for children who participate in a game play session (class or event). Children answer some questions and quizzes related to plastic waste before the session. In addition, after the session, the same quiz will be given again, along with a survey asking whether participants want to play again and their feedback on the board game or the event. Examples of quiz questions include: “What are the 3Rs?”, “What is most plastic made from?”, “It’s expected that the amount of plastic will be more than fish in 2050. Is it

correct?” and answers are contained in the answer key of the board game. It is useful to understand children’s expectations and prior knowledge by doing a pre-session questionnaire. Also, a post-session questionnaire is conducted to assess their understanding, engagement and enjoyment. Additional questionnaires are administered to collaborators (teachers, organization staff and student volunteers) to evaluate the board game and events. The objective is to get feedback from various perspectives. The questions cover both the game itself and the events. They also provide feedback on children’s behavior. The important point is whether the board game is effective for children. (Figure 6 & 7)

Figure 6.

Target Group	Evaluation Assessment		Key Metrics/Questions	Assessment Objective
	Timing	Method		
Children	Pre-session	Questionnaire and Quizzes	Prior knowledge of plastic waste (e. g., “What are the 3R?”, “What is most plastic made from?”, plastic vs fish ratio in 2050); expectations	Understand children's expectations and establish a baseline for prior knowledge
Children	Post-session	Questionnaire and Quizzes	Quantitative quiz results (same as pre-session); desire to play again; qualitative feelings about the board game or event; engagement; enjoyment	Measure knowledge retention, engagement, and enjoyment to determine game effectiveness
Collaborators (Teachers, organization staff, student volunteers)	Post-session	Questionnaire	Qualitative feedback on the game and event; observations of children's behavior; perceived game effectiveness	Gather feedback from multiple perspectives to evaluate the board game and event delivery

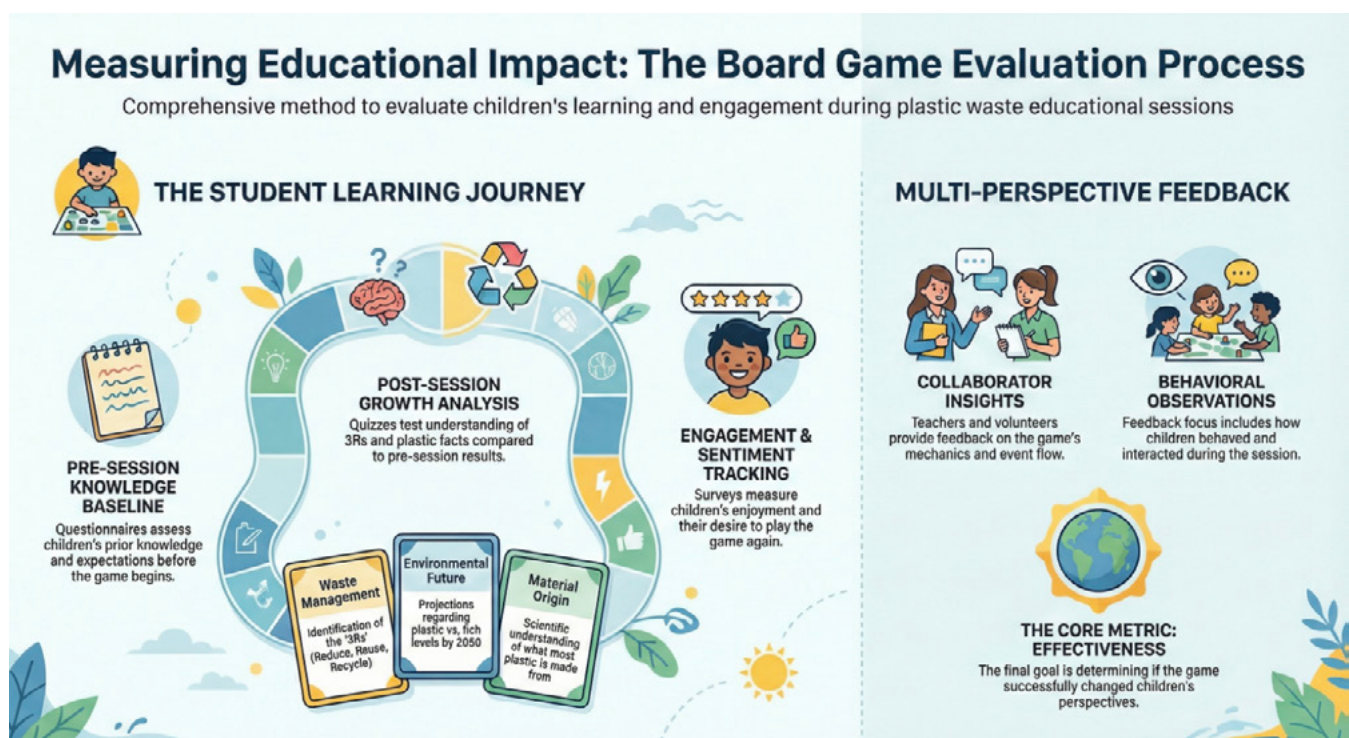


Figure 7.

X Conclusion

In conclusion, Manibu's EcoQuest demonstrates how play-based learning can create meaningful environmental awareness among children by transforming complex sustainability issues into engaging, relatable experiences. The project bridges local challenges with proven waste-management cultures through lessons in the Philippines, thus reinforcing the importance of early education, teamwork, and responsibility via the principles of a board game. Through interactive gameplay, children learn that everyday choices matter and that collective action can lead to real change. As these young players grow into future decision-makers, the habits and values nurtured through EcoQuest contribute to a more peaceful and sustainable world by 2050. EcoQuest not only provides educators with a joyful board game for learning but also integrates knowledge into children's learning. Ultimately, the project reminds us that sustainability is not achieved through fear or obligation, but through understanding, cooperation, and shared responsibility. With continued commitment, education-driven initiatives like Manibu's EcoQuest offer hope that a more balanced relationship between people and the planet is within reach.

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[GREEN HASHIRAS]

EcoLeads: Youth - Action - Impact

"We are EcoLeads, united we rise, with purpose and pride beneath ASEAN skies.

From plastic waste to the future we chase.

Our hope is the tool that rebuilds this place"

EcoLeads builds upon the Green Hashiras, a youth collaboration formed under the ASEAN-Japan Youth Forum.

Member

Sovannvita Torng
Kai Kimura

Padaphone Atvaly
Eaindray Phoo Myat

Siriphong Chotirat
Thu Hang Tran

I Introduction

A. Vision for 2050

By 2050, youth across ASEAN lead community-based plastic waste solutions with clear access to funding and support. Environmental concerns translate into lasting action through a self-sustaining network of young leaders, mentors, and measurable impact.

EcoLeads contributes to this vision by building a model that can be repeated and adapted beyond its pilot phase. Through regular workshop cycles, guided project development, accessible funding support, and clear measurement of plastic reduction, the program turns youth concern into steady, long-term environmental action. As more cohorts grow across ASEAN, each local effort to reduce plastic waste adds up, gradually moving the region closer to the 2050 goal.

B. Background of Study

Across ASEAN and Japan, plastic pollution has become a major problem in everyday life. Plastic drifts through rivers,

accumulates along coastlines, and settles into ecosystems that once sustained communities. This crisis is driven not only by rising consumption of single-use plastics, but also by uneven waste-management systems that allow plastic to leak into the environment (World Bank, 2022). Because plastic travels through shared waterways and oceans, what is discarded in one place often becomes a burden elsewhere, turning plastic pollution into a deeply regional challenge (Jambeck et al., 2015; World Economic Forum, 2023).

To better understand how environmental concern translates into real-world outcomes, the EcoLeads team reflected on field experiences from the Philippines and Japan under the ASEAN-Japan Youth Forum. While both contexts demonstrated strong awareness of plastic pollution, the outcomes differed sharply depending on the presence of supporting systems (Table 1).

These observations led to a clear insight: care exists in both contexts, but lasting impact depends on structure. Where systems are weak, even strong commitment struggles to create long-term change.

Table 1. Two Journeys, One Insight: Learning from the Philippines and Japan

Field Experience	Philippines	Japan
What we encountered	Plastic visible in daily life and waterways	Plastic managed through structured systems
Community response	Strong concern, willingness to help	Responsibility embedded in daily routines
Youth involvement	Active volunteers in clean-up; e.g. ▶ DENR Collection Contest ▶ Project Pick	Youth engaged in innovation and solutions; e.g. ▶ Kaman Corporation ▶ Green Bird ▶ Kamikatsu Zero Waste Center (Kamikatsu-cho, Tokushima Prefecture)
Incentives to act	Limited and informal	Clear and institutionalized
Use of technology	Minimal digital support	Innovation and technology integration
What this taught us	Commitment exists	Systems enable continuity

C. Problem Statement

Despite strong youth engagement, most youth-focused environmental initiatives remain fragile and short-lived. Young people are invited to help but rarely empowered to lead. Their involvement is often unpaid, temporary, and disconnected from funding, decision-making, and implementation structures. As a result, many promising ideas never move beyond the planning stage.

This gap is structural, not motivational. In other words, youth care deeply about environmental issues and are willing to act, but they lack access to resources, funding channels, project management skills, and decision-making authority that would allow their initiatives to continue beyond short-term activities (UNDP, n.d.). Indeed, research indicates that youth-led climate and environmental initiatives consistently face funding barriers and limited access to institutional support structures (Gan, 2025). Without structured pathways from idea to implementation, engagement remains episodic rather than sustained.

At the same time, plastic waste generation across ASEAN continues to increase, while even countries with advanced systems still generate high volumes due to consumption patterns (Vuk et al., 2025). Youth are expected to care, but they are rarely given structured tools to implement scalable solutions.

D. Objectives

EcoLeads responds to this reality by repositioning youth not as short-term volunteers, but as long-term implementers of plastic-waste solutions. Rather than asking young people to care more, the initiative seeks to help them act more effectively (Tabel 2).

II Action Plan

A. The EcoLeads Model: From Learning to Impact

EcoLeads works in five clear steps:

1. Train youth on plastic waste issues and project planning.
2. Guide them to design a small, realistic project.
3. Help them identify funding or alternative support.
4. Support them during implementation.
5. Measure the plastic waste reduced.

The goal is simple: move youth from learning to doing. Instead of stopping at awareness campaigns, participants must design, fund, implement, and measure a real project within a defined period.

B. Workshop Structure and Recurring Strategy

The workshop will be implemented through a recurring, online-based program model that prioritizes cross-border accessibility, cost control, and scalability. Moreover, to avoid passive participation, the online workshops will include:

- ▶ Small breakout groups (5-6 participants per group)
- ▶ Weekly assignments linked to their project idea
- ▶ Mandatory milestone submissions (concept note → draft proposal → final proposal)
- ▶ Mentor check-in sessions every two weeks
- ▶ Eligibility for seed funding only upon full participation

Participants who do not complete assignments will not proceed to the funding stage.

Therefore, Vietnam is selected for the pilot phase because it offers the strongest balance between readiness and feasibility. While the Green Hashiras network spans multiple ASEAN countries, Vietnam currently provides practical advantages, including active university environmental groups, easier

Table 2. Objectives and Key Performance Indicators (KPIs)

Objective 1: Strengthen measurable youth capacity	
Expected Outcomes	Youth demonstrate improved technical, leadership, and project-management skills
Key Indicators (KPIs)	▶ At least 80% workshop completion rate ▶ Submission of at least one viable project proposal per participant group ▶ Demonstrated improvement in pre- and post-program self-assessment scores in leadership and project planning
Objective 2: Enable fundable and implementable initiatives	
Expected Outcomes	Youth-led projects move from concept to structured funding and implementation
Key Indicators (KPIs)	▶ Number of proposals matched to funding sources ▶ Number of projects receiving seed funding or alternative financing (CSR, crowdfunding, university funds) ▶ Number of projects entering implementation phase
Objective 3: Achieve verified reductions in plastic waste at the community level	
Expected Outcomes	Measurable reduction of plastic waste at community level
Key Indicators (KPIs)	▶ Kilograms of plastic waste reduced/diverted per project cycle ▶ Number of plastic waste management interventions implemented ▶ Adoption of sustainable waste practices among participants

participant recruitment, and the presence of a team member based locally to support coordination and monitoring. Starting in one country allows the team to test the full EcoLeads model in a manageable setting before expanding to other ASEAN countries.

In addition to the core structure, each workshop cycle will include awareness sessions that address both plastic waste issues and relevant legal frameworks, allowing participants to develop a holistic understanding of environmental challenges and governance. A theme rotation strategy will be adopted, whereby each subsequent workshop focuses on a different topic or skill area relating to plastic waste. Even when workshops cannot be conducted on a monthly basis, the rotating theme model and digital format ensure that the program remains active, relevant, and sustainable over time.

C. Structured Workshop Themes: “PlastiCamp”

The EcoLeads online-based workshop series called “PlastiCamp” is organized around a structured set of recurring themes designed to guide youth from environmental awareness to practical action and leadership (Tabel 3).

Table 3. PlastiCamp Workshop Themes

Theme	Focus	Aligned SDGs
Theme 1	▶ Plastic waste awareness ▶ Sustainable living	SDG 12: Responsible Consumption and Production SDG 13: Climate Action SDG 14: Life Below Water
Theme 2	▶ Community action ▶ Creative advocacy	SDG 11: Sustainable Cities and Communities SDG 4: Quality Education SDG 17: Partnerships for the Goals
Theme 3	▶ Project implementation ▶ Reflection ▶ Youth leadership	Leadership & sustainability

1. Theme 1: Plastic Waste Awareness and Sustainable Living

• Phase 1

This workshop theme emphasizes practical, everyday actions such as waste reduction, reuse practices, recycling systems, and sustainable alternatives to single-use plastics. Through interactive discussions and activities, participants develop sustainable lifestyle habits and learn how individual choices can contribute to collective environmental impact.

2. Theme 2: Community Action and Creative Advocacy

• Phase 1 & 2

Youth are guided to design small-scale community initiatives and creative advocacy campaigns in Vietnam addressing plastic waste issues.

3. Theme 3: Project Implementation, Reflection, and Youth Leadership

• Phase 3

The final theme focuses on implementing youth-designed projects and reflecting on outcomes and lessons learned. This theme also introduces leadership development, encouraging active participants to take on mentoring roles in future workshop cycles and contribute to the sustainability of the EcoLeads program.

D. Guided Project Development, Budgeting, and Proposal Writing

As part of “PlastiCamp” Theme 3, the program provides hands-on guidance in budgeting and resource planning, helping participants estimate costs, identify materials, and prioritize activities for feasibility and sustainability. Additionally, participants will receive support in proposal writing, focusing on objectives, activities, timelines, impact, and sustainability. By the end of the program, each participant or group will produce a concise, actionable project proposal that can be implemented locally or further developed for future initiatives.

E. AI-Assisted Proposal-to-Funder Matching and Mentor Allocation

The EcoLeads platform uses an AI-assisted matching system to connect youth-led proposals with suitable funding sources. Participants upload their project proposal once, and the AI analyses the content against a partnered database of grant opportunities. This database includes programmes from organisations such as USAID, UNICEF, UNDP, Japan Foundation, YSEALI, and Global Greengrants Fund, as well as opportunities sourced through the ASEAN University Network. Based on this analysis, the system ranks and presents the most suitable funders for each proposal. What makes this platform particularly helpful is that the AI does not simply list funders; it also reformats the proposal to match each funder’s specific requirements and informs users exactly what additional information they need to provide. This reduces the burden of rewriting proposals from scratch for different grant applications. Throughout this process, the EcoLeads team provides guidance to participants, helping them refine their proposals and navigate the application process.

To support transparency and accessibility, the EcoLeads AI-assisted proposal platform, developed by the authors, is accessible via the project website: <https://ecolead-saagy.vercel.app/>

F. Structured Pipeline: Learn → Design → Fund → Implement → Measure

The EcoLeads model follows a continuous pipeline that guides participants from initial learning to verified impact. In the Learn phase, participants attend workshops to build their

understanding of plastic-waste challenges and solution design. During the Design phase, they develop project concepts with clear objectives, budgets, and timelines. The Fund phase connects their proposals to appropriate funders through the AI matching system. Once funding is secured, participants move to the Implement phase, where they carry out their projects at the community level with ongoing support from the EcoLeads team. Finally, in the Measure phase, project outcomes are tracked and verified, with plastic waste reduction recorded in kilograms.

Table 4. The EcoLeads Model

Stage	Description
Learn	Environmental education and awareness
Design	Project development and planning
Fund	AI-assisted proposal matching
Implement	Community-level action
Measure	Verified plastic waste reduction

III Phased Implementation Timeline

A. Phase 1: Capacity-Building and Project Design (1st March 2026 - 30th March 2026)

This phase focuses on strengthening youth skills and transforming ideas into viable projects.

- ▶ Delivery of training workshops on plastic-waste solutions, project management, budgeting, and impact measurement
- ▶ Introduction to the EcoLeads AI-assisted proposal platform
- ▶ Mentored development of project concepts and draft proposals

B. Phase 2: Proposal Matching and Funding (5th April 2026 - 25th April 2026)

This phase connects youth-designed solutions with appropriate funding sources.

- ▶ Refinement and finalization of proposals with mentor support
- ▶ Matching of proposals to aligned funders using the EcoLeads platform
- ▶ Transparent review and selection process
- ▶ Disbursement of seed grants to selected youth projects

C. Phase 3: Project Implementation and Evaluation (1st May 2026 - 1st July 2026)

This phase supports on-the-ground action and learning.

- ▶ Implementation of funded projects at community level

- ▶ Ongoing mentoring and technical support
- ▶ Monitoring of outputs, outcomes, and challenges
- ▶ Final evaluation to assess environmental impact, youth capacity gains, and scalability potential

IV Implementation Design and Governance

A. Governance Structure and Roles (Table 5)

EcoLeads (Coordinator): Oversees program design, digital infrastructure, workshop delivery, and impact documentation.

Youth Participants (Implementers): Act as the primary drivers of the initiative designing projects, launching advocacy campaigns, and providing peer-to-peer support (Figure 1).



Figure 1. Youth Participation Criteria (Poster Version)

Mentors (Advisors): Environmental experts and leaders who provide technical guidance and feedback to ensure project feasibility.

Funders & Partners (Enablers): Provide the financial resources, strategic direction, and visibility necessary for scaling and long-term sustainability.

B. Pilot Phase Implementation

The pilot phase of EcoLeads will be implemented with an initial focus on Vietnam as a proof of concept. The pilot's focus on Vietnam aligns with successful local models, such as GreenHub's student-based 'Rethink, Reduce, Recycle'

Table 5. Project Phases and Governance Roles

Role	Phase 1	Phase 2	Phase 3
EcoLeads	Facilitates workshops	Manages the funder matching	Oversees MRV and finalization
Youth	Learns technical skills and drafts project concepts	Refines and pitches final project proposals	Executes community projects and peer mentoring
Mentors	Provides feedback	Reviews final proposals	Offers ongoing technical implementation
Funders & Partners	Provides strategic guidance	Selects projects	Reviews impact data

initiatives, which have demonstrated the effectiveness of integrating plastic monitoring into school-aged youth programs (GreenHub, 2024).

C. Monitoring, Reporting, and Verification (MRV)

PlastiCamp's MRV approach adopts the data integrity and transparency principles outlined for circular interventions in Southeast Asia, ensuring that youth-collected data is consistent, accessible, and actionable for local policy-makers (UNDP, 2025).

impact beyond the initial funding period.

D. Cross-Border Collaboration and ASEAN-Japan Knowledge Exchange

The project will initially leverage the Green Hashiras network, comprising members from Cambodia, Laos, Myanmar, Thailand, Vietnam, and Japan. This network will then expand through the TASC alumni community and broader ASEAN-Japan knowledge exchange channels.

V Outreach, Partnerships, and Ecosystem Building

A. Digital Outreach and Youth Recruitment Strategies

EcoLeads will maintain an active presence on Instagram, TikTok, LinkedIn, and the official EcoLeads website. These platforms will be used to share educational content, announce workshop schedules, and highlight success stories from funded projects. The initial target group is university students across ASEAN who are interested in environmental action but lack access to funding pathways, with potential expansion to other youth demographics as the program matures.

B. Partnerships with Universities, Civil Society Organisations, and Funding Institutions

EcoLeads will collaborate with universities, civil society organisations, and environmental NGOs to recruit participants and promote workshops. During the pilot phase in Vietnam, the project will engage with local universities to establish initial partnerships. As the project scales, similar collaborations will be developed in other ASEAN countries. Partnerships with funding institutions will also be pursued to expand the grant database available through the platform.

C. Community-Based Engagement with Local Stakeholders

Local stakeholders, including community leaders and waste management practitioners, will be involved in project implementation. This ensures that youth-led solutions are context-specific and address the actual needs of each community. Community engagement also strengthens local ownership of projects, increasing the likelihood of sustained

VI Budget Framework and Resource Mobilisation

A. Budget Structure Aligned with Implementation Phases

The estimated annual budget for EcoLeads is approximately 7,000 USD. This figure covers core operational costs during the pilot phase in Vietnam and will be adjusted as the project scales (Table 6).

Table 6. Budget Overview

Category	Estimated Cost (USD)
Platform development and maintenance	2,000
Workshop delivery (materials, facilitation)	2,500
Digital outreach and marketing	1,000
Monitoring and evaluation	500
Administrative and miscellaneous	1,000
Total	7,000

B. Funding Sources and Grant-Matching Strategy

EcoLeads will seek funding from multiple sources to support project activities. Potential funders include USAID, UNICEF, UNDP, Japan Foundation, YSEALI Seeds for the Future, and Global Greengrants Fund. These organisations have demonstrated interest in youth empowerment, environmental sustainability, and regional cooperation within ASEAN and Japan. Beyond grants, EcoLeads will also explore crowdfunding campaigns, corporate sponsorships, and earned-income opportunities such as paid workshop facilitation for partner institutions. As the platform grows, EcoLeads aims to establish formal partnerships with these funders and diversify income streams to reduce dependency on any single funding source.

C. Principles of Financial Transparency and Cost Efficiency

All funds will be managed directly by the EcoLeads team, with oversight from an independent accountant, supported by clear documentation and regular reporting to ensure transparency and accountability to all stakeholders. Budget allocation will prioritise activities that directly contribute to capacity-building and measurable plastic-waste reduction. As the project expands to additional countries, the budget framework will be reviewed and scaled accordingly to accommodate increased operational needs.

D. Revenue Model and Financial Sustainability

To ensure the project is not solely grant-dependent, EcoLeads will introduce tiered access to premium AI platform features and offer paid capacity-building workshops to universities and organisations as earned-income streams.

VII Expected Outcomes

The EcoLeads program is expected to generate a set of concrete outputs that enable youth-led environmental initiatives to progress from concept to implementation in a structured and supported manner.

A. Core Outputs

1. Output 1: Matching mechanism between funders and student-led proposals

A structured matching platform and review process will support students in identifying relevant funding pathways and reduce administrative barriers that typically limit youth participation in grant applications.

2. Output 2: Resource provision for project implementation

Participants will receive coordinated support essential for implementing their projects, including:

- ▶ Technical expertise through workshops and mentorship
- ▶ Financial support through seed funding and grant facilitation
- ▶ Access to networks involving universities, civil society organisations, and environmental NGOs

B. Contribution to Youth-Led Environmental Action

Collectively, these outputs establish the operational foundation necessary for youth to execute environmental initiatives effectively, while ensuring alignment between project design, funding access, and feasible implementation pathways.

VIII Impact Measurement

A. Environmental Impact

- ▶ Amount of plastic waste reduced, diverted or prevented (kg/month/project)
- ▶ Number of plastic consumption and disposal behaviors changed (e.g. reduction in single-use plastic usage, increased waste segregation, etc.)
- ▶ Number of local plastic waste management interventions implemented

B. Youth Capacity

- ▶ Number of students completing capacity-building workshops
- ▶ Number of viable proposals produced
- ▶ Demonstrated improvement in youth capacity, measured through:
 - Self-assessment in leadership, project management, and collaboration
 - Mentor or peer feedback

C. Community-Level Impact

- ▶ Number of community members involved
- ▶ Community feedback on relevance and usefulness, collected through surveys and interviews
- ▶ Local capacity built, such as skills transferred and established routines for plastic management

IX Sustainability and Scalability Strategy

A. Financial Sustainability Strategy

To ensure long-term viability, EcoLeads adopts a hybrid financial model combining initial grant support with institutional partnerships and service-based revenue. As the program matures, sustainability will be strengthened through three mechanisms: (1) a transparent administrative or coordination percentage from successfully funded youth projects to cover oversight and logistics; (2) co-financed workshop cycles with universities and partner organisations as part of their sustainability or civic engagement programming; and (3) sponsored cohorts supported by corporate and ESG-aligned partners in exchange for structured impact reporting. With online delivery and volunteer-based mentorship keeping operational costs lean, these diversified revenue streams are designed to gradually reduce reliance on external grants while maintaining free access for youth participants.

B. Circularity Learning Model and Recurring Project Cycles

EcoLeads adopts a circular learning model in which each project cycle generates knowledge, tools, and lessons that feed directly into subsequent cohorts where materials are updated and archived to allow future participants to build on prior experiences.

C. Youth-to-Youth Knowledge Transfer

EcoLeads emphasizes youth-to-youth knowledge transfer as a core sustainability mechanism, where graduates of previous project cycles take on mentoring roles for new participants. Alumni sharing and mentoring can occur via social media community groups.

D. Localization Strategy and Phased Expansion Across ASEAN Countries

EcoLeads aims to be locally adaptable and follows a phased expansion strategy. Initial implementation focuses on a limited number of pilot projects to validate the model and refine operational processes before expanding incrementally across ASEAN countries through local youth partners.

X Conclusion

EcoLeads transforms youth concern into action through structure, support, and measurable impact. By guiding young leaders from learning to funding to implementation, the project builds a self-sustaining ecosystem for community-based plastic-waste solutions across ASEAN and Japan. In doing so, EcoLeads proves that when systems are built for youth, lasting environmental change follows.

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The Blue Horizon Organization

A Global Youth-Led Organization for Plastic Waste

Member

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I Introduction

In a world full of differences—different cultures, backgrounds, and problems, it is important, now more than ever, to find solutions in the commonalities we have, unity in the divide, and peace in the striving for a better future. With plastic waste being a rampant problem across ASEAN, Japan, and the world, we encounter a variety of plastic waste problems that cannot be solved with a single solution. As our action plan, we would create an organization utilizing our diversity to our advantage and use it as a tool to increase youth engagement, spread valuable awareness, and mobilize localized social action.

Vision for 2050:

By 2050, we envision a world where countermeasures for the plastic waste problem are initiated by the youth, seeing long-term sustainability as the number one priority.

II Insights and Learnings from the TASC Program

A. Current Understanding - Plastic Waste

Plastic waste is one of the most damaging problems globally, as recognized by the United Nations Environment Programme (United Nations Environment Programme [UNEP], n.d.; UNEP, 2023; Alqattaf, 2020). Across ASEAN and Japan, nations face diverse plastic waste problems such as Cambodia's excessive use of plastic bags, Indonesia's waste mismanagement and import, Japan's excessive plastic packaging practices, the Sachet Economy in the Philippines, and Thailand's lack of recycling (UNDP Climate Promise, 2025; UNDP Cambodia, n.d.; IUCN NL, 2025; Riliananda & Lotulung, 2025; Rogers, 2024; Borgers, 2025; Koons, 2024; Pustadan, 2024; Envilience ASIA, n.d.; Lodhi, 2025; ASEAN Secretariat, 2017).

B. Current Understanding - Youth

Youth across different countries and contexts show levels of

awareness on the plastic waste problem, however, with the lack of initiative, motivation, and accessible platforms, translating those concerns into action remains difficult (Ningrum, 2024; United Nations Development Programme [UNDP] Montenegro, 2022).

C. Field Trip

After visiting the Philippines and Japan, we learned more about the plastic problems and how different societies respond to them. In the Philippines, plastic waste is very visible, reflecting limited waste management systems and daily survival needs, which made us realize how environmental issues are closely connected to poverty and infrastructure, such as in Baseco where we saw how waste is managed and turned into livelihood. In contrast, Japan manages plastic more systematically through strict sorting, recycling rules, and public discipline. However, both countries still rely heavily on plastic. Overall, we learned that while solutions differ in efficiency, real change requires strong systems and shared responsibility.

D. Gap - Youth and Plastic Waste Action

The significant gap between youth and plastic waste action is a lack of collaboration and the limited power given to young people to address plastic waste. According to WWF Indonesia's article by Ningrum (2024) and UNDP Montenegro's report (2022), young people acknowledge the problem of plastic waste use, but they ignore it and continue using it in daily life. Although there are those who are eager to solve the plastic waste issue, they need more support, platforms, and opportunities to take initiative in solving environmental issues (The Annie E. Casey Foundation, 2024).

III Action Plan

A. Organizational Profile

1. About the Blue Horizon Organization

The Blue Horizon Organization is an organization that allows students in ASEAN and Japan to learn and engage with

the plastic waste problem. We let members experience and learn about the plastic problem to foster a better understanding of its threats to society. To achieve this goal, the organization will be a platform that holds various events, campaigns, and initiatives that address the plastic waste problem.



Figure 1. Blue Horizon Organization Logo

2. Organizational Model - AIESEC and ASEAN Youth Organization (AYO)

Two youth organizations serve as a model for our organization. AIESEC, one of the biggest student organizations, provides students with volunteering and internship opportunities, especially related to the SDGs. It is led by students but has strong cooperation with companies and universities (AIESEC, n.d.). The ASEAN Youth Organization (AYO) is similar, though it holds short-term events, and projects that address sociopolitical issues. It also values relationships among ASEAN youth, fostering an international perspective and establishing stronger networks (ASEAN Youth Organization, n.d.).

3. Uniqueness and Selling Point

Blue Horizon's uniqueness lies in its ability to operate globally but solve locally. As a global organization, all of its units are given a working engine that enables them to create solutions to different plastic problems wherever they may be. Each branch is shaped based on its unique realities and it creates localized solutions to address the plastic waste problem. Each branch will also create and hold events that are both focused on plastic waste action and aligned with their culture. For example, an event in Japan could be about creating origami using recycled plastic packaging and an event in the Philippines could be a Parol (*traditional Filipino Christmas lantern*) making workshop using recycled marine plastic. Additionally, cross-chapter sharing of projects, events, and information will be facilitated to foster a better understanding of the plastic waste problem beyond understanding within one's own country.

4. Sustainability and Scaling

Establishment of branches in many universities allows us to manage much more easily than just working at a large scale as they will operate as semi-independent organizations within each university. This will improve accessibility for students and increased interest in plastic waste action.

B. Governance and Management

Five founding members from Japan, Thailand, the Philippines, Indonesia, and Cambodia make up the Governing Council of Blue Horizon. The organization's geographical base and shared dedication to tackling plastic waste through international collaboration are reflected in this council. In addition to approving rules, ensuring openness, and providing strategic direction, the Governing Council protects Blue Horizon's long-term goal of a plastic-responsible world by 2050. Consensus and consultation are used to make decisions, guaranteeing equitable representation for each of the five nations.

An Executive Team consisting of a Programs Manager, Operations Manager, Finance and Administration Officer, Communications and Media Officer, and Partnerships and Outreach Officer, oversees daily activities. This group oversees events, plans programs, manages partnerships and promotions, and helps chapters and members carry out community-based initiatives.

In order to guarantee accountability and impact, the Blue Horizon Organization uses structured methods, such as yearly planning, open financial management, precise role distribution, internal communication, and monitoring and evaluation procedures. A dedicated operations manual and organizational by-laws will be created to guide the central organization and chapters.

C. Funding and Financing Model

The Blue Horizon Organization adopts a diversified and sustainable funding model to support both central operations and university-based chapters. Funding will come from a combination of partnerships with universities, environmental NGOs, environmental activists, and socially responsible private-sector organizations; grants related to youth action, environmental sustainability, and international development; modest and context-sensitive membership fees collected by each country chapter; and project-based fundraising activities such as workshops, exhibitions, and awareness campaigns. Digital fundraising and social media campaigns will also be used to support specific initiatives and engage wider audiences. This multi-source approach aligns with common NGO financing practices, which emphasize the importance of blending grants, partnerships, donations, membership fees, and activities to

ensure financial stability and resilience while reducing risk from reliance on only one source of funding.

D. Strategic and Program Frameworks

1. Blue Horizon Framework

The Blue Horizon Organization will use the Blue Horizon Framework strategically in every project, event, and initiative that it creates. This framework will serve as a guide to ensure that the organization is systematically creating valuable impact in plastic waste action. The framework will have six distinct components, as follows:

- a. **Identifying and Breaking Down the Problem** - First of all, we identify the plastic waste issues we want to solve and think about the problem critically.
- b. **Identifying the Contribution Point** - We identify what part of the problem youth can help with.
- c. **Defining the Goal** - We continue by defining what we want to achieve in this project.
- d. **Designing the Project** - The project is designed to bridge the identified gap through youth action.
- e. **Implementation** - We implement the project through university-based and youth-led branches.
- f. **Evaluation** - We evaluate projects by measuring the increased action of youth in addressing plastic waste and how the goal was achieved.

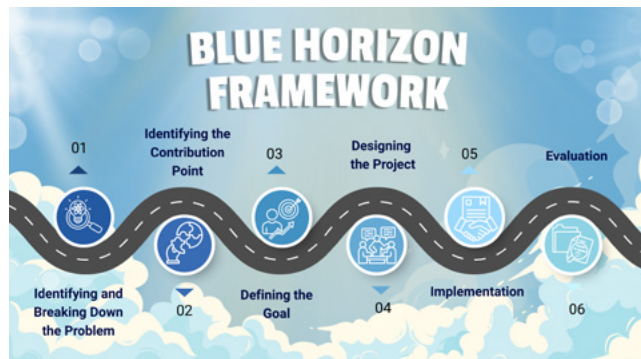


Figure 2. Blue Horizon Framework

2. Blue Horizon Pillars - Sun, Moon, and Stars

The Blue Horizon Organization operates under three pillars. *Sun* empowers youth through educational and insightful activities; *Moon* utilizes social media to disseminate informative content and connects youth; and *Stars* builds partnerships and opportunities to foster long-term sustainability.

Sun is the activities part of the organization. We aim to encourage and provide opportunities to empower youth who are eager to solve the plastic waste problem. Activities include educational programs about waste management, workshops on promoting upcycling, and more. Youth can also participate in volunteering and competition campaigns that not only help youth actively engage in environmental issues but also can build

global connections across ASEAN and Japan.

Moon is the Social Media Information Dissemination wing of the organization. Social media is an effective platform to connect with youth because it is popular and accessible. We use social media to raise public awareness about plastic waste, promote our mission, and introduce information about the organization's profile and events. By providing meaningful and well-researched content, we aim to enhance concrete understanding of plastic waste issues in ASEAN and Japan and encourage youth to participate in our project.

Stars is the partnerships and opportunities part of the organization. As a youth-led organization, we aim to enhance environmental collaboration by partnering with non-governmental organizations, youth networks, and local communities. For example, Trash Hero World is an NGO focused on solving plastic waste by encouraging people to join clubs and run campaigns together (Seema, 2026). They also have partners around the world. Moreover, they offer educational activities that are linked with our organization's activities. Hence, collaborating with this organization will help promotion of Blue Horizon's work and the achievement of its goals. This component focuses on sustainability in addressing plastic waste issues while cultivating opportunities for young people to develop environmental leadership, social skills and build multicultural networks through collaborative projects, mentoring, and initiatives that are essential to supporting long-term sustainability alignment.

E. Proposed Organization Launch and Timeline

1. Phase 1 - Preparation and Foundation

Purpose: To create and prepare the necessary groundwork for a successful launch.

Timeline: January to June 2026

Description and Tasks: To ensure a successful launch, Phase 1 will be the Preparation and Foundation stage for the Organization, spearheaded by the founding members. This phase will have three main objectives:

1. Create and finalize the By-Laws and Operations Manual of the organization
2. Identify the Founding Country Directors and Members for each national chapter of the organization across ASEAN and Japan
3. Establish the organizational structure and internal working systems of the overall organization and national chapters

By executing these tasks, we ensure that all the necessary systems are in place in preparation for the launch of the Blue Horizon Organization together with its country chapters. In the latter months of this phase, the founding members and chapters will also create teasers and promotions to increase anticipation

for and awareness of the organization prior to its launch, together with creating partnerships with other organizations, government branches, and media organizations. All launch efforts and events will also be prepared.

2. Phase 2 - Launch

Purpose: To officially launch the Blue Horizon Organization and the different chapters across ASEAN and Japan.

Timeline: July 2026

Description and Tasks: In line with Plastic Free July, the Blue Horizon Organization will be launched in July alongside the chapters in different countries. An official launch event will be held on July 18, 2026 in Manila, Philippines to celebrate the organization's launch. In the event, founding members will talk about the objectives of the organization, its short-term and long-term goals, and inform the public and potential members about the organization and how it works. Guest speakers will also be invited to give talks on environmentalism and plastic waste issues and actions across the world. Founding Country Directors from every chapter will also be invited to the event.

3. Phase 3 - Stabilization and Expansion

Purpose: To ensure consistent growth and stable operations of the Blue Horizon Organization and its chapters

Timeline: August to December 2026 and beyond

Description and Tasks: Following the launch of the organization, the following months of the year will be focused on ensuring that operations are stable and growth is consistent across all chapters. Recruitment efforts will be conducted by the overarching organization and respective country chapters to recruit new members. The central Blue Horizon Organization will also be attentive and keep close coordination with the chapters to ensure that every branch of the Blue Horizon Organization is able to operate smoothly.

F. Sample Project and Specific Action

The Sorting Out Segregation Education Project:

Undergraduate students will undergo training, visit local elementary schools, and give lectures related to garbage, with a focus on plastic waste. Undergraduate students will mainly teach the importance of segregation, lead practical activities, and provide comprehension tests. Below is a proposed outline of how this project will be executed.

Note: The word "teacher" below indicates undergraduate students who are members of the Blue Horizon Organization.

Refer to this link to access the Project Outline and Curriculum:

[The Sorting Out Segregation Education Project - Proposed Project Outline and Curriculum](#)

IV Expected Outcomes and Impact

A. Backcasting Goal & Long-Term Strategy

We developed our backcasting goals as a strategic guide to ensure a clear and sustainable direction in planning long-term actions to address plastic waste issues by projecting goals from 2050 until the present.

1. 2050–2040 (Global recognition and long-term phase)

First, Blue Horizon is recognized as a global youth organization.

Second, plastic waste problems in the ASEAN–Japan region are in a managed phase, where plastic management systems are stable, recycling practices and behaviors are normalized, and damage caused by plastic waste is being reduced. We also want to see plastic waste action thriving.

2. 2040–2030 (Expansion and system integration)

First, within this period we will be able to expand across all ASEAN countries with independent branches and have a sustainable leadership system.

Second, communities in ASEAN–Japan will be in a phase where all people are aware, segregation has become a common practice, and the volume of unmanaged plastic waste can be reduced, while the circular economy in each country begins to operate.

Third, the Blue Horizon Organization will also have received strong and stable funding through long-term partnerships and support.

3. 2030–2026 (Building organizational foundations and connecting youth)

In the first year, we will establish a strong organizational foundation as a youth-led organization and expand to 4 ASEAN countries (Indonesia, the Philippines, Thailand, and Cambodia), as well as Japan. The reason we are starting in these 5 countries is that the founders, Team E Blue Horizon, originate from these countries; hence, we can ensure clear communication, coordination, and monitoring. The main focus of this phase is to introduce and promote the Blue Horizon Organization and to form core management teams at universities as a foundation for organizational sustainability. In the following years, after the foundation is established, the Blue Horizon Organization will enter a phase of strengthening projects and connections through:

a. Educating kindergarten, elementary, junior high, senior

high school, and university students to raise their awareness, including education on waste management such as segregation, which is the key to addressing plastic waste issues.

- b. Providing support by collaborating and connecting youth in ASEAN and Japan to build global cooperation in addressing plastic waste issues.
- c. Optimizing social media as a platform to promote our organization and disseminate information. In addition, we will influence the community by utilizing Fear of Missing Out (FOMO), a common concept among today's youth, where they fear missing out on trends, leading youth to follow them. These trends can encourage youth to develop both positive and negative habits but, in this context, we leverage FOMO for positive purposes, namely motivating youth to become interested in managing plastic waste and to join our organization.
- d. We will also partner or collaborate with universities, NGOs, and the private sector to ensure program sustainability.



Figure 3. Backcasting Goals of Blue Horizon Organization)

B. Monitoring & Evaluation

The monitoring and evaluation section will be used to ensure that all programs and activities of the Blue Horizon Organization are well-directed, measurable, and sustainable in addressing plastic waste issues

Refer to this link to access the Monitoring and Evaluation System of Blue Horizon Organization:

[Blue Horizon Organization - Monitoring and Evaluation System](#)

C. Short-Term Outcome

We aim to foster awareness and personal responsibility toward plastic waste management by encouraging collaboration and connecting youth in ASEAN and Japan. Through various activities, youth will be aware of and see plastic waste as an environmental issue and a shared responsibility that requires concrete action. In the short term, we aim to raise youth awareness of the importance of plastic waste management,

which is currently a major environmental issue and requires shared responsibility. Collaborating with youth from ASEAN and Japan will provide new perspectives and a broader understanding of plastic waste issues and management. Furthermore, through various educational and collaborative activities, young people are not only equipped with knowledge but also encouraged to develop creative ideas to reduce plastic waste.

D. Long-Term Impacts

In the long term, the Blue Horizon Organization will contribute to strengthening sustainable plastic waste management systems and culture in ASEAN and Japan. This organization encourages a significant reduction in unmanaged plastic waste, supports the circular economy in communities, empowers youth to initiate sustainable waste practices and concrete actions to address plastic waste, and builds collaborative networks among youth across the globe.

V Conclusion

Throughout the ASEAN-Japan Youth Forum: Take Actions for Social Change (TASC) 2025, our team gained a multitude of learnings about plastic waste through seminars, site visits, and discussions and we also learned even more by working together. Core to our action plan are three important lessons: that the plastic problem requires various solutions, diversity leads to unity that drives change, and youth engagement and leadership will shape the future of our world. Through our learnings and months of constant collaboration, we created our action plan – the Blue Horizon Organization, a global youth-led organization addressing plastic waste which operates globally but solves the plastic problem through local initiatives.

We may be different in many ways, but let's allow the common thread of wanting a better future to unite us under one Blue Horizon. Serving as a platform for global plastic waste action for youth, we are committed to driving change for a future with reduced reliance on plastic. We hope to prove that youth have the desire to spark change, all they need is a platform to ignite it, and we hope to be that platform to raise concrete awareness and urge youth to Take Actions for Social Change.

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Figures 4. Photos of Team E Blue Horizon

Program Schedule

Orientation & Online Seminar 1

August 16 (Sat.), 2025

- ▶ Self-introduction
- ▶ Keynote speech by the chief advisor, Prof. Masaaki Okamoto
- ▶ Lecture by Assoc. Prof. Deo Florence L. Onda
- ▶ Group activities led by the facilitators from Next Creation

ASEAN Field Trip

Visit to: The Philippines / August 31 (Sun.) to September 5 (Fri.), 2025

Opening Session

- ▶ Lecture by Prof. Misuzu Asari
- ▶ Lecture by Assoc. Prof. Maria Kristina Paler

Sites in Cebu:

- ▶ Olango Island Wildlife Sanctuary
 - Carl Angelo Jumalon, Ecosystem Management Specialist 1
 - Devine Grace Jumao-as, Development Management Officer 1 (DMOI)
- ▶ SM GUUN Environmental Company Inc.
 - Hiroshi Haraki, General Manager
 - Prettie Acop-Jalang, Admin/PCO/Sales and Marketing Officer
- ▶ Mandaue Green Learning Eco Park
 - Rosemarie Chavez, Assistant Department Head of the General Services Office

Sites in Manila:

- ▶ Department of Environment and Natural Resources (DENR) Environmental Management Bureau
 - Bhona May Oñarte, Environmental Management Specialist at the Solid Waste Management Division
 - Gabrielle Raine Aguzar, Environmental Management Specialist 1 at the Solid Waste Management Division
- ▶ Metro Manila Development Authority (MMDA) Solid Waste Management Office
 - Jose Nino Beltran V, Project Evaluation Officer 1
 - Ma. Lisa Caguimbal, Project Development Officer III
 - David RJ Viola, Project Development Officer II
- ▶ Baseco Compound
 - Laarni “Lala” Salanga, Livelihoods officer for Urban Poor Associates (UPA) and KABALIKAT CCR
- ▶ Circular Explorer
 - Nathalie Inductivo, OIC – Sustainability Manager, Project Coordinator of Circular Explorer at Holcim
 - John Ivan Cunanan, UP MSI intern for the University of the Philippines - Marine Science Institute
- ▶ JunkNot
 - Wilhelmina “Willie” Garcia, Founder of JunkNot

Online Seminar 2

November 15 (Sat.), 2025

- ▶ Midterm presentation of action plans after the ASEAN field trip
- ▶ Feedback from the advisors and mentor
- ▶ Workshop led by the facilitators from Next Creation



Group photo on Olango Island, Philippines



Cleanup activity on Olango Island



Participants visiting Baseco Compound



Upcycling workshop at Junknot

Japan Visit

November 30 (Sun.) to December 7 (Sun.), 2025

Sites in Tokyo:

- ▶ Lecture by Tokyo Metropolitan Government Bureau of Environment
 - Satomi Ota, Deputy Director, Planning Section, Sustainable Materials Management Division
 - Sachiko Kurono, Deputy Director, General Waste Management Section, Sustainable Materials Management Division
- ▶ KAMAN Inc. (Megloo Project)
 - Shingo Yoshizumi, CEO of KAMAN Inc.
- ▶ Fabric K.K.
 - Rebekah Cheng, Strategic Design Lead of Fabric
- ▶ NPO Arakawa River Clean-aid Forum
 - Kazuyuki Imamura, Director/Office Manager

Sites in Osaka:

- ▶ Daiei Kankyo Co., Ltd.
 - Makoto Yamada, Executive Officer / Manager of the Technical Department
 - Koji Hashimoto, Manager, Research and Development Section, Technical Department
- ▶ DINS Kansai Co., Ltd.
 - Tatsuya Yagi, Director
 - Kazuya Hashimoto, Office Director, R & E Office

Sites in Nara:

- ▶ MUJI Aeon Mall Kashihara
 - Hiroshi Shimoda, Store Manager
 - Masaaki Matsui, Deputy Store Manager

Sites in Kyoto:

- ▶ Sustaina Kyoto (Environmental Education Facility, Kyoto South Clean Center)
- ▶ Kameoka City and Circular Kameoka Lab
 - Cho Suzuki, Manager, Environmental Policy Section, Kameoka City
- ▶ Hozu-gawa River Boat Ride
 - Tomoya Toyota, Representative Director of Hozu-gawa River Boat Ride
- ▶ KYOTO SATOYAMA SDGs LAB
 - Toshio Mitsumoto, Executive Managing Director / Secretary-General, Project 530
 - Xinqi ZHANG, Asari Laboratory, Research Promotion Officer, Education Division, Fundamental Research Department, Research Institute for Humanity and Nature

Action Plan Final Presentation :

December 6 (Sat.), 2025

- Venue: Center for Southeast Asian Studies, Kyoto University
- Commentators:
 - Masaaki Okamoto, Professor, Center for Southeast Asian Studies, Kyoto University
 - Misuzu Asari, Professor, Research Institute for Humanity and Nature
 - Maria Kristina Oquinena Paler, Associate Professor, University of San Carlos



Recycling processes at DINS Kansai



Group photo during the visit to MUJI



Group photo at Kyoto University



Final presentation session

Supporters

■ Chief Advisor

Masaaki Okamoto (Professor, Center for Southeast Asian Studies, Kyoto University)

His current primary research interest is the digitalization-driven socio-political transformation in Southeast Asia, particularly in Indonesia, and he conducts interdisciplinary collaborative research on this topic. He is now organizing collaborative research on text-based and visual social media to understand the drastic transformation of elections and political campaigns in Southeast Asia. He also conducts transdisciplinary research on environmental issues, such as the rapid expansion of oil palm plantations in Southeast Asia and their ecological and socio-economic impacts, as well as urban heat and its long-term social consequences. He has conducted this interdisciplinary and transdisciplinary research with various stakeholders in Indonesia and beyond.

■ Advisors

Misuzu Asari (Professor, Research Institute for Humanity and Nature)

She is a Professor at the Research Institute for Humanity and Nature, Kyoto, specializing in waste management, resource circulation, and sustainability education. She earned her Ph.D. in Engineering from Kyoto University in 2004. Her research integrates environmental engineering with social engagement, focusing on how waste reflects lifestyles and societal structures. She actively promotes sustainability on campus and in communities through initiatives such as “Surprise! 100 ECO selections,” “Eco Power Plant,” “Ecole de Kyoto University,” the “Kyoto beyond SDGs Consortium,” and the “Kyoto Satoyama SDGs Lab (KOTOS).” Her recent work includes international collaborations on plastic waste management, community-based waste separation, and sustainable seafood supply chains. She emphasizes field-based learning and public outreach, aiming to bridge academic research with practical environmental action.

Seiji Hashimoto (Professor, Ritsumeikan University)

He has been a Professor at Ritsumeikan University since 2011, after he was appointed as a Senior Researcher at the National Institute for Environmental Studies, a Visiting Associate Professor at The University of Tokyo, a Visiting Fellow at Yale University, etc. He studies assessment methodologies and system design for sustainable resource and waste management, looking at the whole system comprehensively from the extraction of resources through the disposal of wastes. He was a Lead Author of the Waste Management Chapter in the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) (2004-2007), a member of the International Resource Panel (IRP) of the United Nations Environmental Programme (UNEP) (2015–), and a Councilor for International Society for Industrial Ecology (2009-2011). He got a doctoral degree from the Graduate School of Engineering at Kyoto University, Japan.

■ Mentor

Maria Kristina Oquinena Paler (Associate Professor, University of San Carlos)

She is an Associate Professor of the Department of Biology, School of Arts and Sciences at the University of San Carlos, Cebu City. As an educator, Dr. Paler handles graduate courses on Environmental Science, Ecology, Environmental Pollution and Circular Economy. She was trained at the University of Basel (Switzerland) and Chiba Institute of Technology (Japan) for the analysis of macro and microplastics in environmental systems. As an Environmental Scientist, Dr. Paler has been working for more than a decade now on the social and ecological nexus of the plastic issue. She has produced various publications on this topic including plastics and biodiversity interaction and effects. She is a co-investigator of plastic related projects such as the Southeast Asia Marine Plastics, [Benzotriazole UV-328 in marine plastic debris in typical Southeast Asia countries](#), Understanding impacts of PLASTics pollution on Biodiversity and Associated Services of Ecosystems from the lens of the stakeholders (Plasti-BASE).

■ Facilitators

Gilang Andi Pradana (Facilitator, Next Creation)

As co-founder and Program Director at Next Creation, he leads innovation workshops that help organizations—from corporations and startups to SMEs, government agencies, and universities across Japan and Indonesia—build teams that enjoy solving big challenges through playful and collaborative methods. He is a certified design sprint facilitator and holds a PhD in Computer Science from the University of London and a master's degree in media design, following residencies in the innovation hubs of Tokyo, New York, and London as part of Keio University's Global Innovation Design program. He also serves as a lecturer at Ritsumeikan Asia Pacific University.

Takahiro Kiyofuji (Facilitator, Next Creation)

He is the CEO of Next Creation, a company he co-founded with Gilang to accelerate the innovation process of Japanese organizations. Their partnership began in the Ritsumeikan University Entrepreneurship Program, where their early work won multiple business awards and laid the foundation for the company. Kiyofuji is a business consultant with experience in the tech and retail sectors who holds an MBA from Kyushu University. In addition to his leadership at Next Creation, he oversees several family businesses, including a traditional Japanese mochi store with more than 110-year history. He also serves as a lecturer at Nagasaki University.

Narrative Report Reviewers

Gilang Andi Pradana and Annisa Arsyad

What is TASC in Your Words?

Nickname	What is this program to you?
Pich	My other home, where I can find all my beloved ASEAN and Japan friends. I can feel at ease, have fun, and love them.
Bambi	A program to create solutions for a sustainable, peaceful future.
Eaindray	TASC is where I discovered my true voice, potential, and confidence.
Sona	A challenge and special opportunity that gave me new insights.
Lucas	Born to be connected.
First	An eye-opening experience learning from diverse perspectives on environmental action with passionate youth across Asia.
Min Han	A cherished journey that empowered me to shoulder social responsibility.
Yu	This program taught me that friendship and teamwork transcend borders.
Eak	TASC is an unforgettable experience full of love, friendship, and knowledge.
Vita	With only a 0.000067% chance of meeting, fate still brought us together.
Niña	A life-changing learning experience that created unforgettable memories and relationships.
Amir	An insightful yet unforgettable journey where we united through diversity.
Put	A priceless and insightful experience with long-lasting friendships.
Hope	A wild dream come true and an opportunity I'm forever grateful for.
Joi	A garden where confidence, skills, and friendships bloom.
Chinta	TASC is a miracle, empowering youth, building global understanding, and a new family.
Shiv	An amazing experience, difficult to express, informative, and educational, yet memorable.
Lisa	ASEAN-Japan youth unite, fostering growth, friendship, and brighter futures.
Baginda	A life-changing program that I am deeply grateful for!
Togo	Special opportunities to share one's own thoughts with new friends.
Pream	A core memory moment.
Ram	Fulfilling purpose and advocating for change through friendships <3 (APA YAH!) .
Adam	Like sakura blooms—brief yet meaningful and unforgettable.
Kai	A diverse and enriching experience that connects to my future.
Kaede	Best memories of my uni life — unforgettable.
Najo	To a better future, we plan, act, and celebrate!
Jen	Space for learning and friendship.
Chloe	A meaningful experience helping me learn, listen, understand diverse perspectives, and grow.



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