

# Sakura Science Program Online Educational Project

## Report



2021   Japan Science and Technology Agency

### 櫻花科技計畫 線上交換課程

Sakura Science Program Online Educational Project

**課程主題 Subject**  
可持續發展行動的交流學習:  
日本、台灣及馬來西亞線上合作課程  
Translocal peer learning about sustainability actions:  
Online collaboration among Japan, Taiwan, and Malaysia

**招收對象 Participant**  
地理系各級學生(學、碩、博)  
Department of Geography  
(Bachelor, Master and PhD Students)

**課程時間 Schedule**  
10/26、10/28、11/2、11/4、11/9、11/11、11/25  
\*暫定・時間可能會彈性調整(tentative, might change later)

**課程負責人 Coordinator**  
地理系 莫家俊 助理教授  
Assistant Professor Mucahid M. Bayrak

報名連結及課程資訊  
Apply form & More Details

合作學校  
Partner University

 **Kyutech**  
Kyushu Institute of Technology

 **國立臺灣師範大學**  
National Taiwan Normal University

 **UPM**  
Universiti Putra Malaysia

  
<https://forms.gle/LLKjpf5m553y2xX8>

Photo by Masaki Komori on Unsplash

\*(Above poster was used to recruit NTNU students)

**Prepared by: Mucahid Mustafa Bayrak and Nien Tung**

2021/12/1

## **1. Introduction**

This report briefly describes the activities conducted for the Sakura Science Exchange Program entitled: *“Translocal peer learning about sustainability actions: Online collaboration among Japan, Taiwan, and Malaysia”* from 26 October to 25 November 2021 and organized by Dr. Masahiko Ota (Kyushu Institute of Technology - Kyutech)—who is the PI of the project—and Dr. Mucahid Mustafa Bayrak (National Taiwan Normal University - NTNU), Ms. Nien Tung (NTNU), Dr. Latifah Abd Manaf (Universiti Putra Malaysia - UPM) and Dr. Mohd Yusoff Ishak (UPM). This report includes a short summary of the original proposal, activities conducted, and plans forward. We are grateful to the Japan Science and Technology Agency as well as all the organizers for their support.

## **2. Project background**

Complex problems in the contemporary world, represented by the Sustainable Development Goals (SDGs), cannot be solved by one single country, region, organization, or individual. Collaboration of various stakeholders with different backgrounds is therefore necessary. Ideas for social transformations or improvements are likely to emerge out of the encounters with different others rather than a homogeneous group. Processes through which participants can transform themselves through learning with different people each other are thus desirable.

This project provided opportunities for translocal peer learning on sustainability actions in Japan, Taiwan, and Malaysia. A “sustainability action” refers to any initiative or mechanism to make a community more ecologically harmonious and more socio-economically inclusive. “Translocal” is a concept to transcend geographical localities by connecting an action in a certain locality with other localities. “Peer learning” is a process in which participants learn and teach each other in a collaborative manner. The project intends to bring about changes in mindset and behavior among the participants in terms of the contributions to the SDGs.

## **3. Project activities**

The implementing agency (Kyutech) and the partner universities (NTNU and UPM), in collaboration with guest lecturers, provided lectures about sustainability actions in their respective countries. In total 28 participants (both graduate and undergraduate students) participated in the program, coming from Malaysia, Japan and Taiwan, but also countries such as India, Laos,

Myanmar, and the Netherlands. The participants formed mixed teams and learned about sustainability actions in different localities, participated in discussions using the Slack platform (Figure 1), and finally proposed ideas for improvements focusing on particular cases through final presentations. The flowchart of the program is depicted in Figure 2.

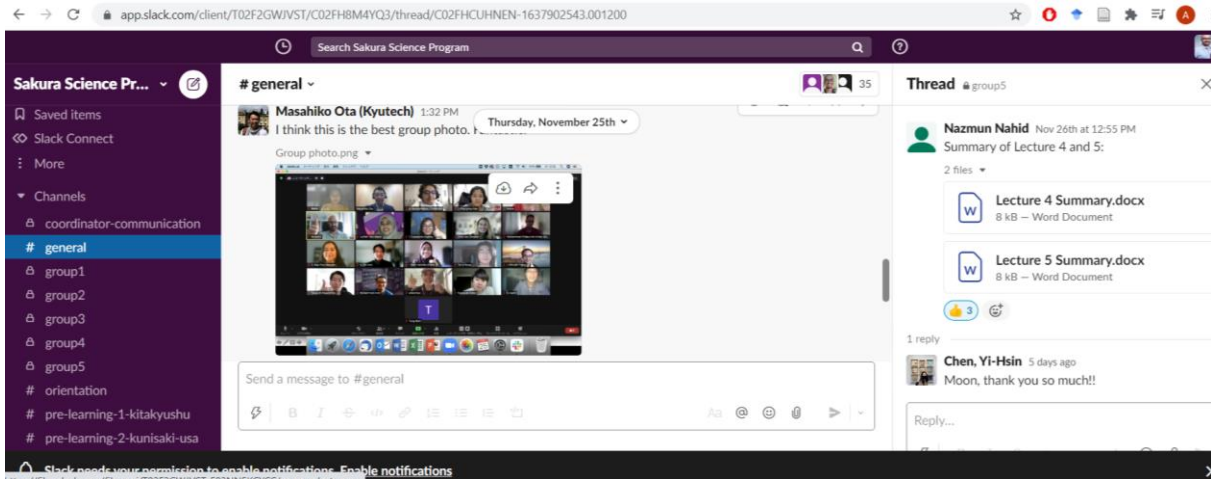


Figure 1: Slack platform interface

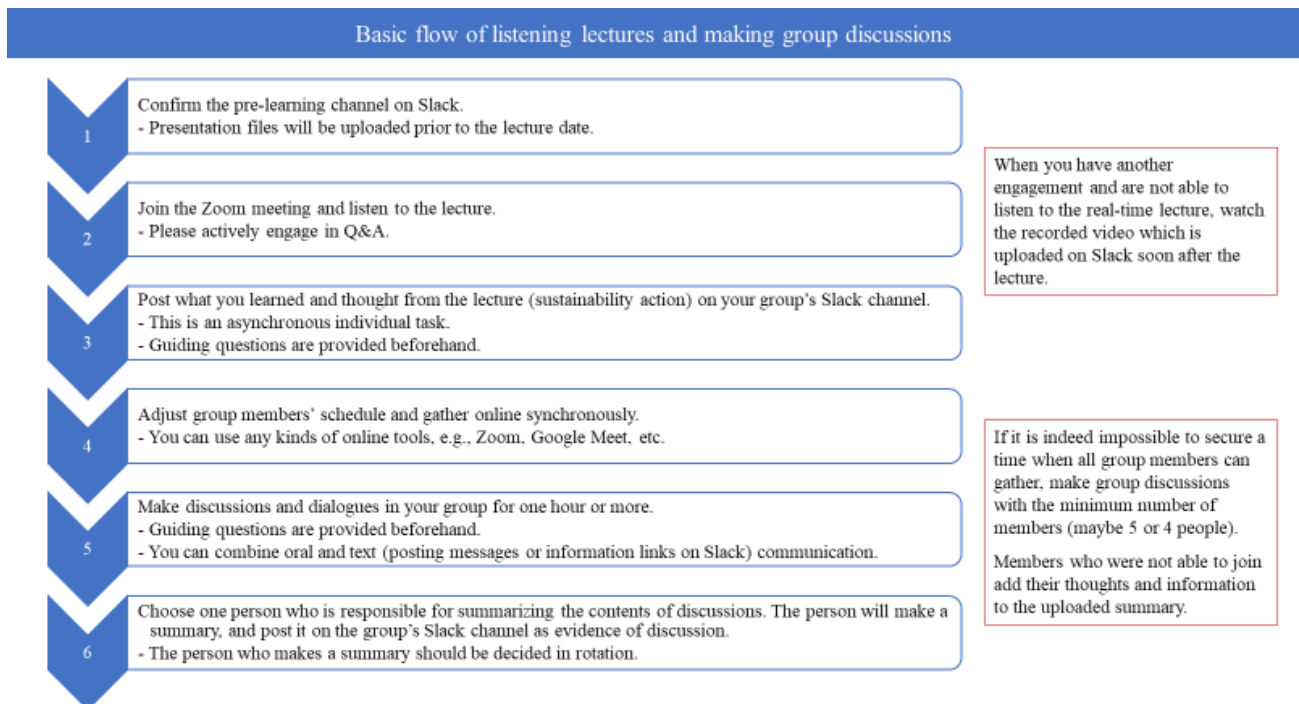


Figure 2: Flowchart of the activities for the Sakura Program

The program kicked off with an orientation lecture (Figure 3). In the months of October and November the following lectures were presented: (1) Kitakyushu City (Japan): Experiences of

overcoming pollution and public-private-citizen partnership (Figure 4); (2) Educational programs for revitalization of rural area in Japan (Oita Prefecture, Japan) (Figure 5); (3) Initiatives for “zero waste” in Kamikatsu Town (Tokushima Prefecture, Japan) (Figure 6); (4) Urban planning and development controversy in a flood-prone area of Shezidao in Taipei (Taiwan) (Figure 7); and (5) Citizen science for river management in Klang Valley, adjacent to Kuala Lumpur (Malaysia) (Figure 8). All lectures were related to the environment and the SDGs (Table 1).

Table 1: All activities for the Sakura Program (Kyutech/NTNU/UPM) 2021

<b>Activity:</b>	<b>Lecturer:</b>	<b>Date:</b>
Orientation Lecture: check-in, ice breaking, and outline of the project + group discussion	Dr. Masahiko Ota; Dr. Mucahid Mustafa Bayrak; Dr. Latifah Abd Manaf; Dr. Mohd Yusoff Ishak; and Ms. Nien Tung.	26/10/2021
Lecture: Kitakyushu City (Japan): Experiences of overcoming pollution and public-private-citizen partnership + group discussion	Dr. Masahiko Ota	28/10/2021
Lecture: Educational programs for revitalization of rural area in Japan + group discussion	Dr. Hiroaki Hayashi	02/11/2021
Lecture: Zero Waste Village of Japan + group discussion	Ms. Kana Watando and Ms. Linda Ding	04/11/2021
Fieldtrip to Shezidao, Taipei (optional)	Dr. Mucahid Mustafa Bayrak + NTNU participants	06/11/2021
Lecture: Rethinking urban climate resilience from a political perspective + group discussion	Dr. Mucahid Mustafa Bayrak	09/11/2021
Lecture: Citizen Science Project for River Management	Dr. Mohd Yusoff Ishak	11/11/2021

Student preparing for the final presentation using Slack platform	All Sakura participants	11/11/2021 - 25/11/2021
Final student presentations + teacher/student feedback	All Sakura participants + all lecturers	25/11/2021
Handing out of the final certificates + allocation of makeup assignment	Dr. Masahiko Ota	26/11/2021

The course's participants were divided into five teams in the orientation session. After every lecture, each team engaged in groupwork including discussions about what they understood and what kinds of implication they derived from the lecture as well as what kinds of information they should get for further deliberation of the topic. People from different countries may have different understandings and get different implications from the same information, due to the differences in localities cultures, and academic backgrounds. It is the project's expectation that such differences can work positively as a source of inspirations toward changes.

As the final project, each team focused on one topic (sustainability action), based on the lectures of this course, to examine the topic further with more information on the local context, and they presented proposed ideas for improvements. The session for the final presentation was in the form of a competition, and Group 3 won the best presentation award, with two NTNU students being part of this team: Ho Liang Xuan and Ying Jie Lai (賴映潔) (Figure 9).



Figure 3: Orientation: check-in, ice breaking, and outline of the project (October 26, 2021)



Figure 4: Kitakyushu City (Japan): Experiences of overcoming pollution and public-private-citizen partnership by Dr. Masahiko Ota (October 28, 2021)

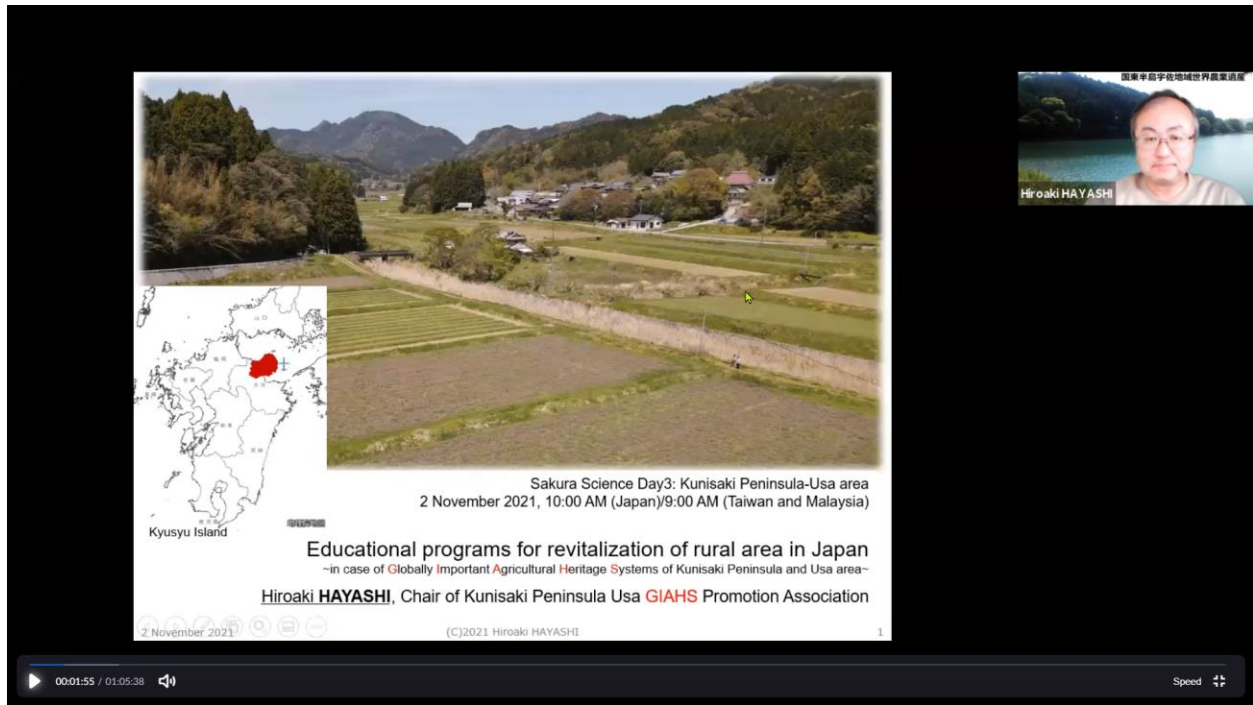


Figure 5: Educational programs for revitalization of rural area in Japan by Dr. Hiroaki Hayashi (November 2, 2021)

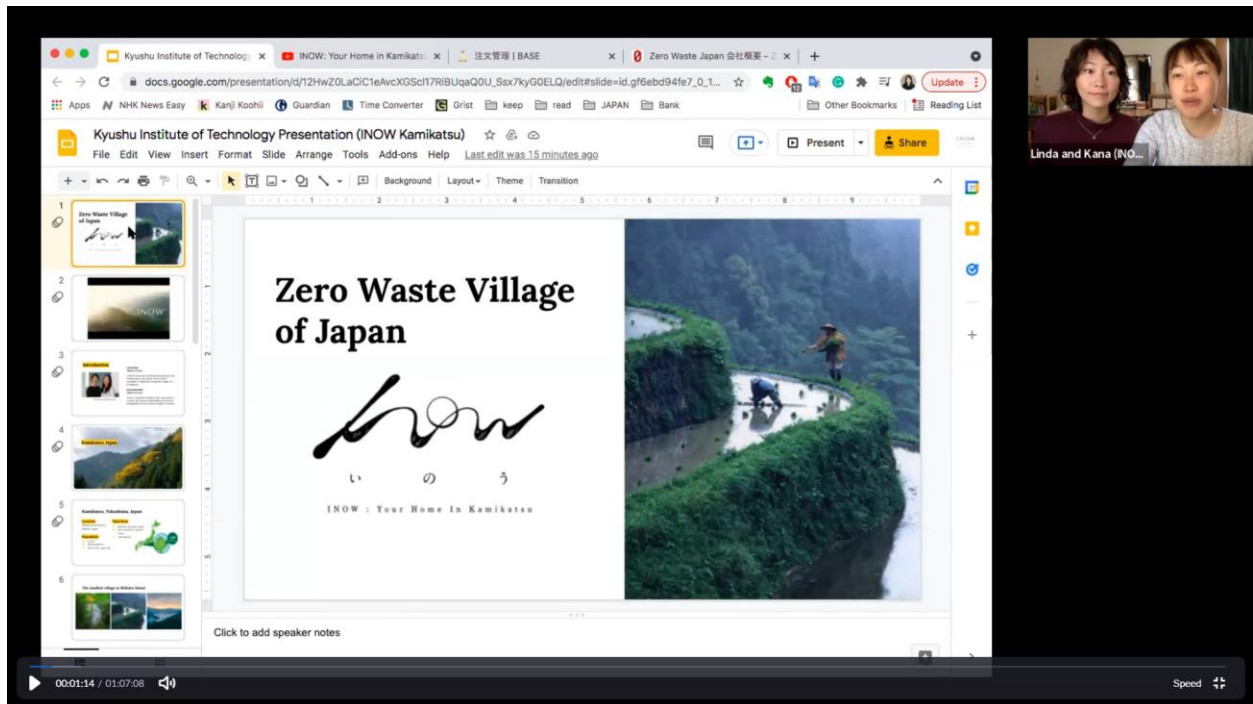


Figure 6: Zero Waste Village of Japan by Kana Watando and Linda Ding (November 4, 2021)

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**Day 5: Taipei**

Rethinking urban climate resilience from a political perspective: a case study on Shezidao, Taipei City


November 9, 2021

By: Dr. Mucahid Mustafa Bayrak (Department of Geography, National Taiwan Normal University)

00:00:09 / 01:07:17  Speed 


Figure 7: Rethinking urban climate resilience from a political perspective by Dr. Mucahid Mustafa Bayrak (November 9, 2021)

**Citizen Science Project for River Management**



Mohd **YUSOFF** Ishak, PhD  
Senior Lecturer  
Department of Environment,  
Faculty of Forestry and Environment  
Universiti Putra Malaysia

Sakura Science Program  
11 November 2021





00:00:27 / 01:18:40  Speed 

Figure 8: Citizen Science Project for River Management by Dr. Mohd Yusoff Ishak (November 11, 2021)





Figure 9: Best presentation award rewarded to Group 3 on November 25, 2021)

As part of the Sakura exchange programme, Dr. Mucahid Bayrak brought the NTNU Sakura students to Shezidao for an optional fieldtrip on November 6, 2021 in order to give the students ‘real-life’ examples of sustainability challenges (Figure 10). Five out of nine NTNU students joined this fieldtrip and they provided photos and videos for Dr. Bayrak’s presentation.



Figure 10: Fieldtrip to Shezidao, Taipei (November 6, 2021)

#### 4. Outcomes and future activities

Of the 28 students who initially participated, 21 received a certificate of completion (Figure 10), and a few more students are currently doing a make-up assignment in order to qualify to receive a certificate of completion. We asked students to fill out a questionnaire about their ideas of sustainability before the course ([https://docs.google.com/forms/d/1VUwLXkfyBwE8U9NAQr6J0IBYwjAkIWI932hl6A2sR7k/viewform?edit\\_requested=true](https://docs.google.com/forms/d/1VUwLXkfyBwE8U9NAQr6J0IBYwjAkIWI932hl6A2sR7k/viewform?edit_requested=true)) and we asked them to fill-out the same questionnaire after the course ([https://docs.google.com/forms/d/1gTsl-rS01NMohA7FoPNR4y0Nm5MIsDIMu3ZMtcKEhJg/viewform?edit\\_requested=true](https://docs.google.com/forms/d/1gTsl-rS01NMohA7FoPNR4y0Nm5MIsDIMu3ZMtcKEhJg/viewform?edit_requested=true)) this in order to “measure” how much students have learned from the course. These results will be presented later, and there are plans to develop a journal article on translocal peer learning and the SDGs, using the lessons learned from this project. We estimate that the number of hours each student put into this course is between 30 and 40 hours. We hope to plan a similar exchange activity next year with all the research partners. Last but not least, three of the NTNU Sakura students will present their experiences on December 13, 2021 during the Department internship sharing workshop at Geography Dept of NTNU, and they are also expected to write an individual report.

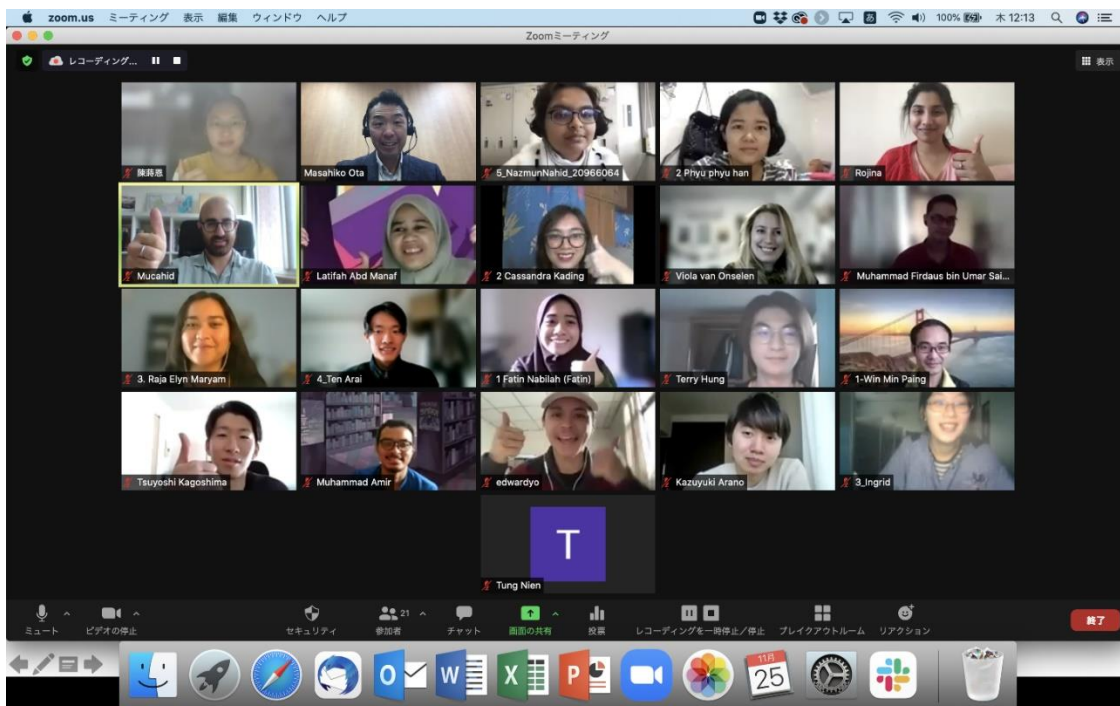


Figure 11: Group Photo at November 25, 2021

## 5. Summary of project in Chinese / 中文摘要

本學期國立台灣師範大學 地理系 莫家俊助理教授受日本九州科技大學 Masahiko Ota 准教授邀請，與馬來西亞博特拉大學聯合辦理「日本櫻花科技計畫」——「可持續發展行動的交流學習:日本、台灣及馬來西亞線上合作課程」，本課程從 2021 年 10 月 26 日至 11 月 25 日於線上辦理，邀請台灣、馬來西亞及日本的專家學者分享 5 個城市針對 SDGs 的永續行動，總計有 28 名來自 7 個不同國家的學生參與，並於最後一堂課將課程所學應用，由各小組報告所提出城市的永續行動方案。

本課程學習時數約為 30 到 40 小時，透過 Slack 平台讓學生可以在聆聽演講後於線上與組員進行討論，同時藉由自我評量問卷檢視學生學習成效，期望透過國際交流的線上課程拓展學生視野，並在疫情中提供跨文化學習的機會。