

Study tour to wetlands in Estonia

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Abstract: The Republic of Estonia is a small but wetland-rich country. The country also has a lot of civil organizations which deal with sustainable development. There has been, on the other hand, many study tours conducted by the Japanese universities and non-governmental organizations. The most recent popular theme in study tours is sustainable development. This report introduces the study tour to Estonia, focusing on wetlands as a part of sustainable development. The first section explains the concept and contents of the tour, and the second illustrates the combinations and coordination between local resources and university accreditation as an official program. The final shows a possibility of wise use of wetland from the CEPA framework.

Key words: Estonia, International Study Tour, Educational Program, University Accreditation, Wise Use, Experiential Learning

1. Introduction

Many Japanese universities have recently developed various educational programs. One of these is study tour programs by which the students undertake fieldwork and trips that differ occasions from their daily lives. The study tour is organized and conducted by a non-governmental organization, school, university, government, or religious group with the purpose of developing mutual understanding or experiential learning (Fujiwara 2017). Many such tours take participants overseas and aim to provide opportunities to learn about local situations through lectures series, activities, and interactions with local people, while participant's active participation and engagement in the tour are required. The level of learning achievements depends upon how well the tour is organized and how the local resources are available at the destination.

Themes of these tours vary so that many related issues, such as political, historical, environmental, and cultural issues, can be understood in the field. Some tours focus on cultural understanding such as local life in the destination, while others deal with the

structure of selected issues such as poverty and nature conservation. The most recent popular theme is about sustainable development, especially relating to the Sustainable Development Goals (SDGs). Universities could justify the reasons for such programs as being related to the promotional campaign for awareness about achieving SDGs conducted by the Japanese media and the government, comparing to the previous international campaigns.

This report introduces the case of a study tour program to the Republic of Estonia, conducted by Sophia University, Tokyo, Japan. It describes how this wetlands-focused tour brought many learning opportunities to the participated students. Wetlands provide a good learning resource for university students, with opportunities to explore and understand the functions they deliver for both the wider environment and people. Generally speaking, the public awareness about the importance of wetlands is low, but this also means that wetlands offer a large potential for students' learning outcomes in the case of study tours that provide direct experience of such environments to the students beyond the classroom.

The first section in this report illustrates the details of the study tour and provides information about wetlands in Estonia. The second section explains how the local resources and university requirements were combined to develop an accredited study tour program. Finally, the wider benefits of the study tour are explored, giving consideration to the communication, capacity building, participation, and development of understanding about the wise use of wetlands that attending students will experience.

2. Concepts and Details of the Study Tour

2.1 CEPA and Wetlands in Estonia

CEPA refers to Communication, Education, Participation, and Awareness. It was adopted by the Ramsar Convention as a result of recognizing the importance of raising awareness of wetland values and functions. Being pressured by the alarming loss of wetland ecosystems, the Ramsar Convention implemented a CEPA program in 1999 to encourage strategic communication and education at international and national levels. The key implementers of the programme are the Ramsar Administrative Authorities with the cooperation of local NGOs, Ramsar regional initiatives, wetland visitor centres, and other civil society organizations.

Estonia might be called the kingdom of bogs since approximately one quarter of the country is covered in marshes. According to the Ramsar Convention Secretariat, Estonia has 17 sites designated as Wetlands of International Importance, with a surface area of 304 hectares or 3,047 km².

Considering the 50 Ramsar sites within Japan amounting to 148 hectares or 1,480 km² surface area, it is apparent that the density of wetlands is much higher in Estonia than in Japan because its land area is only 12% that of Japan (**Table 1**). According to Marko Kohv, an Estonian expert on wetlands and the local guide in wetland, Loodus Kaitseal and Alam-pedja National Parks have been regarded as important heritage sites not only for and by Estonia itself but also for and by Europe as

whole since the 1980s, and more so since joining the European Union in 2003.

Table 1 Richness of wetlands in Estonia.

	Estonia	Japan
Wetland area (km ²) (a)	3,047	1,480
Land area (km ²) (b)	45,336*	377,974**
% of land area (a/b)	6.72	0.39

*Statistics Estonia (2017)

**Kokudo Chiri In (2017)

2.2 Contents of the Tour

The two tours were conducted in two different academic years; February 2018 and September 2018. The main purpose of the tours was to understand the Estonian cultures, wetlands in Estonia, and people's lifestyle with nature. Both tours brought the participating students to wetlands in Estonia. The numbers of tour participants are shown in **Table 2**. As these were international tours, most students major in foreign language and global studies at Sophia University. It should be emphasized that none of the students were natural sciences major, but all were highly interested in visiting wetlands in Estonia. Participants of both tours received lectures about Estonia, including its rich natural environment and the Estonian lifestyle, and also prepared their own presentations about Japan, to be delivered during the study tours, before leaving Tokyo.

Table 2 Numbers of Participants in Tours (2018).

	Freshmen	Sophomore	Junior	Senior	Total
February tour	2	2	1	2	7
September tour	3	7	0	0	10

The first tour, conducted in February 2018, comprised a combination of lectures, laboratory experiments and fieldwork. Lectures and experiments were held in Tartu Environmental Education Centre (TEEC), called Loodusmaja - meaning "Nature House" - and located in central Tartu, the second largest city in Estonia. The main field site was Endla Nature Reserve, located in Mannikjarve raba vaatetorn, Jogeve, and while the tour

was conducted during the winter and the visited bogs were covered by heavy snow, tour members were able to dig through the snow to take samples. These samples were used to record acid levels (pH), indicating the bog development process shown at their lectures.

Based on the field experience and the contents of lectures, the participating students developed a piece of learning material to provide education on the stages of bog development stages and bog types. The material was designed in the form of a customized “Twister” game, which was demonstrated to a number of participating local students and people as part of the final presentation

of the study tour (**Fig.1 and 2**). The development of these materials is a learning process, shown as “Learning Pyramid ¹⁾” theoretically.

The second tour took place in September 2018, and was also arranged by TEEC, with a focus on Alam-Pedja Nature Reserve, Laeva soo skv. During the field work, participating students took soil samples from to allow analysis of 6,500-year-old soil (**Fig.3 and 4**). Due to the time constraints of the second tour, the participants were unable to feed back their experiences directly to a group of local Estonians during their stay but indirectly by their written reports after they come back to Japan.



Fig. 1 Presentation of learning material.



Fig. 2 Demonstration of play with the material.



Fig. 3 Drilling tool in the field.



Fig. 4 Demonstration of drilling survey.

3. Outer Resource and Inner Cooperation

3.1 Effective partner and local contexts in Estonia

Even though natural resources are rich at the study tour destination, these cannot be fully experienced without the help of a committed partner to help organize and coordinate a meaningful tour. The Estonia study tour program was arranged by the TEEC, based upon the requests of the tour coordinator in Sophia University. TEEC promotes the importance of nature among the citizens of Estonia. Established in 1953, it has provided activities in science education, focusing on experiencing nature. In addition, one of the authors has a 7-year relationship with TEEC as a research partner and studies about many educational activities TEEC holds. This relationship accelerated prompt and flexible response to the various request from the participants to TEEC for the tours in Estonia. According to Maruyama and Sogel (2015), a typical learning opportunity is set as “hobby school” within TEEC, in which a participatory approach develops the learner’s ownership to their programs. They are aware of own purpose of learning and can also identify what to do and cope with other participants and learning environment, designed as non-formal education or outside of the school education system.

The lectures delivered during the study tours explained the history and role of wetlands in Estonia. Experts from TEEC and the Endla Nature Reserve Centre described how walking in wetlands is quite common in Estonia, with people walking on the bog when they celebrate their birthday, and that the bogs are popular weekend destinations for young couples, particularly mid-summer day. The Estonian people and the wetlands of Estonia are closely connected to each other because Estonian national identity is based on culture, language, and nature (Maruyama and Sogel 2015). For instance, it can be inferred that wise use of wetlands in Estonia reflects how the people think about wetlands. Some beauty products are available at local supermarkets, such as soap and skincare products. When students take a learning object close to their own life, learning outcomes

could be meaningful to themselves.

TEEC has also developed plenty of learning materials about the wetlands, including picture books, board games, and card games, targeted at students of a wide age range. These encourage students to actively acquire knowledge of the habitats and ecosystems related to wetlands. Thus, several wetland-focused educational activities exist that open up opportunities for young people in Estonia to communicate about wetlands and raise awareness of the value they hold.

3.2 Formal Accreditation in a Japanese University

Even though the local resources available for visiting students to experience are important, official accreditation from the affiliated university is a factor in engaging students in such study tours²⁾. The study tour to Estonia described here guarantees students receive academic units as long as they complete the required activities specified by the university. A general calculation suggests that one academic unit requires 675 minutes of lecture and/or seminar, or 2,025 minutes of practice and experience. Therefore, the calculation of the tour is as follows:

- a) Before the tour in Estonia, six 90 minute lectures and workshops are conducted. This equates to 540 minutes total, or 0.8 units.
- b) In the field, practice and experience totals 8 hours per day for 6 days. This equates to 2,880, or 1.42 units.
- c) Students are therefore awarded 2 units.
- d) Participating students are also required to submit a final report upon returning to Tokyo.

Coordination and communication between departments within the university is always necessary for a well-functioning study tour, especially for the security of participating students.

4. Ending Remarks

The wise use of wetlands as a concept and topic offers a range of educational possibilities for those unfamiliar with the study of wetlands. With this focus on wetlands, these study tours were able to use the concept of CEPA for the students to communicate with others, educate themselves, participate in all the process of the tours, and raise their awareness about wetlands as a result. While study tours generally emphasize educational outcomes, the focus on wetlands in these tours has increased scope owing to the range of opportunities for activities and learning and the unfamiliarity of the subject matter among the participating students. The tours have generated knowledge of wetlands in those majoring in literature and social sciences who may not have experienced scientific experimentation since graduating from middle school.

The positive side effect for this tour was that focusing on wetlands provided an opportunity for improved communication for both Estonian and Japanese students. Although both groups of students may not have been fluent in English, they shared wetlands as a common topic and were able to develop their language skills through conversations based around this shared understanding. As an important part of educational activities, the wise use of wetlands can bring important potential to the students out of classroom.

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¹⁾ Teaching others is the best learning activity and better than practice by doing and group discussion, according to this model. This model is widely shared among education researchers and practitioners, but there are much critical views from a practical effectiveness.

²⁾ The February tour costed about \$2200 and the September \$2650 for the students.

エストニア湿地へのスタディツアー

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要 旨

エストニア共和国は小さな国であるが、大きな湿地を持ち、持続可能な開発に関する市民活動も多い国の一つである。他方、日本の大学や非政府組織は海外スタディツアーを行ってきて久しい。近年は特に、持続可能な開発をテーマにしたスタディツアーが見られるようになった。本レポートでは、持続可能な開発のうち湿地に着目したエストニアへのスタディツアーについて紹介する。まずスタディツアーの概要について紹介した後、現地のリソースと日本側となる大学の単位付与についての組み合わせおよび工夫を記す。最後に、教育プログラムとしての湿地のワイズユースの可能性をラムサール条約における CEPA プログラムの枠組みから捉える。

キーワード：エストニア，海外スタディツアー，教育プログラム，大学の単位化，ワイズユース，体験型学習