This paper endeavors to suggest what kind of roles academic researchers should play in making tourism more sustainable through describing in detail about innovation outcomes, obstacles, and learnings that the researchers of the Graduate School of Environmental Science, Hokkaido University (GSES) have encountered when sharing practices with tourism stakeholders. It also mentions the potentiality of action research approach in knowledge transfer, sharing, and management.

Also, through researching the local scale of projects in Hokkaido tourism, this paper aims to achieve a globally applicable way to make tourism more sustainable towards regional regeneration.

The paper consists of three different studies. The first study is about the practical value of embeddedness, trust, and co-creation between academic researchers and tourism practitioners (Chapter 2). In the second study, the effectiveness of fostering an embedded relationship in the regional food tourism development is examined through researcher’s employing an action research approach (Chapter 3). The third study mentions in details the results of researcher-led measuring of the destination images of Japan and Hokkaido (Chapter 4).
The first study articulates the value of embeddedness and trust that GSES researchers fostered through co-creation practices with the staff members of Hoshino Resorts, a major international Japan based owner and operator of inns and resorts.

Nature-based tourism (NBT) practitioners urgently need to develop more and better quality products through including the findings of tourism and other scientific researchers. However, in many cases, NBT enterprises do not have enough resources to invest in building a sustainable relationship with such researchers. The first study reports on the long-term involvement of academic researchers in value co-creation – producing a new value in tourist experiences – jointly with tourism practitioners, encouraging significant and innovative NBT outcomes. It articulates how knowledge sharing was achievable between these parties in their shared practices, focusing on the importance of tacit knowledge sharing. A case study approach was complemented by long-term monitoring from 2011 to 2015; data was collected by interview and participant observation and qualitatively analyzed. The results vividly depict that the key factor for effective tacit knowledge sharing and long-term co-creation is largely related to embeddedness, and also to trust, long-term partnerships, and the creation of win-win situations for all sides. Although limited to one set of actors and one socio-cultural context, one Japanese university and one enterprise, this study pioneers empirical research on the relationships between co-creation, knowledge sharing, and embeddedness in sustainable tourism that could be replicated in other situations.

The second study describes the first step of GSES’s action research approach in the food tourism development of the Kamikawa region, the knowledge needs analysis. This study was, in a way, tackled to provide an additional comparative case to the research conducted in the first study. Theoretically and empirically, the study tries to illustrate
that building trust and embeddedness are the keys for researchers to achieve a long-lasting relationship even with a local network consisting of multiple small business owners.

When it is adeptly managed with proper knowledge, food tourism has the potential to strengthen a community’s identity, enhance appreciation of the environment, and encourage the regeneration of local heritage and the economy. In the second study, A GSES researcher has endeavored to illuminate how her interventions may affect the innovation process of food tourism. This study (started in April 2016) aims to articulate how the early co-creation process between the GSES researcher and Kamikawa stakeholders was achieved. The GSES researcher took an action research approach and has positively gotten involved in the local network activities. This greatly helped her to build a trust relationship with local stakeholders and facilitate her knowledge needs analysis by interview and participant observation. As a result, it was revealed that, although local stakeholders had witnessed the rapid increase of independent Asian travelers, they did not know how to capitalize on this opportunity due to a lack of knowledge. The key stakeholders and the researcher collaboratively convened a forum to raise awareness of the contribution of food tourism. The preparation period for this worked to disseminate knowledge. The questionnaire after the forum told that the image of academic researchers perceived by the stakeholders affirmatively changed.

The third study reports the results of measuring the destination images of Japan and Hokkaido perceived by the Hong Kong respondents of the questionnaire survey. As one sphere of an action research approach, this study was conducted to provide Hokkaido local stakeholders with the researcher-led evaluation, which was expected to show the practical effectiveness of academic researchers in supporting the tourism development.

The importance of measuring a tourism destination’s image is universally
acknowledged because the image plays a fundamental role in the success of the destination in the tourism market. The questionnaire survey was implemented in Hong Kong from September to November 2016, and nearly six hundred responses were successfully collected. The data were organized into tables and quantitatively and qualitatively analyzed. The remarkable feature of this study was to incorporate the importance degree of criteria in choosing a destination into the ratings on tourism attributes, which enabled to calculate the overall ratings of the competing destinations towards the international comparison. The major practical implication of this study is identifying that food and safety are not only the most significant strength of most of the Japanese destinations including Hokkaido but also the most important criteria for the respondents in choosing a destination. Surprisingly, the respondents did not attach so much importance to English command and interesting activities when choosing a destination. This study covers only the perception of the people in Hong Kong, one of the primary source markets for Hokkaido tourism. Also, Hong Kong people’s perception does not necessarily represent those of all international tourists to Hokkaido. The continual study is required with bigger sample.

**Who has to take a leading role in making tourism more sustainable?**

Academic researchers cannot be main actors to play in making tourism more sustainable. The main actors are private sector enterprises and tourists since most of the tourism impacts are the result of actions taken by them. However, the researchers have a significant potentiality to support the tourism stakeholders to develop pro-sustainability behavior through research (researcher-led evaluation) and education.

UNWTO states in ‘Making Tourism More Sustainable (UNWTO & UNEP, 2005)’ that there is a clear need for governments to take a leading role if truly significant progress is to be achieved in making tourism more sustainable. Why is this governments’ task?
Because the tourism industry is very fragmented and it is difficult for the individual actions of many micro and small businesses to make a positive difference. In reality, however, the concept of sustainable tourism has not permeated enough through the tourism industry including enterprises, visitors, and even local governments although it has been over ten years since this guideline was published. Why is it so difficult to make tourism more sustainable? The guideline mentions the path to achieve sustainable tourism as follows:

Achieving sustainable tourism is a continuous process and it requires constant monitoring of impacts, introducing the necessary preventive and/or corrective measures whenever necessary. Sustainable tourism should also maintain a high level of tourist satisfaction and ensure a meaningful experience to the tourists, raising their awareness about sustainability issues and promoting sustainable tourism practices amongst them.

However, budget-wise and human-resources-wise, it seems extremely difficult for rural municipal governments to take initiatives in these tasks. Providing knowledge users – tourism practitioners – with monitoring and training when necessary is required to take long time, spend lots of energy, and, above all, have considerable amount of scientific knowledge as well as interpersonal, communication, organization skills. These prerequisites make local governments almost impossible to supervise tourism practices.

This paper argues that universities, especially those for natural sciences, should positively engage in the activities to make tourism more sustainable since they are the producer of scientific knowledge and equipped with analytical skills to reflect on. Above all, they can behave altruistically toward the public good, free from the market principles. Lane (2009) points out that, to achieve this, however, a new generation of highly skilled researchers is needed. He insists that those researchers have to get away from the shyness peculiar to the world within ivory tower and possess a thick but sensitive skin to:
• engage and work with the tourism industry,
• engage the problems of governance and regulation,
• research market beliefs and new forms of marketing,
• research the role of the media industry in opinion forming, and
• use the ideas developed in the social sciences to explore decision making, and social trends.

He also argues that, since academic researchers created the concept of sustainable tourism, they should learn how to implement it, they should gather evidence of how to best do that, they must communicate those skills. Through the three studies, this paper strongly agrees with his argument.

Remarks

This paper has introduced only two sample cases that academic researchers positively got involved in the tourism practices to make them more sustainable. Obviously, there is no reason to assume that these cases are generalizable to other countries or to other functional areas. However, they possibly represent a good starting point of empirical research on the relations between tourism stakeholders and a new type of researchers who positively participate in tourism practice through action research approach. Therefore, while continuing to observe the cases reported in this paper, the next step will be an endeavor to conduct more empirical research projects with much larger samples, hoping that the argument of this paper will be further bolstered. Also, if the number of advocates to the argument of this paper increases, tourism, not limited to Hokkaido tourism, will be consequently more sustainable.