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A multi-layered approach to social entrepreneurship in ecotourism: The Case of Zamami Village, Okinawa Prefecture, Japan

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This study aims to analyse how social entrepreneurs' embeddedness in multi-layered contexts enables them to participate in ecotourism development. Previous studies have analysed social entrepreneurs' attempts to construct ecotourism spaces using a multi-layered approach. However, their approach does not have a theoretical basis for analysing the behaviours of social entrepreneurs embedded in various contexts. Thus, this study proposes an analytical framework based on the new institutional theory and the institutional entrepreneurship concept that considers social entrepreneurship in ecotourism in terms of constructing an ecotourism space. Based on this analytical framework, this study examines the practices of social entrepreneurs in Zamami Village, Okinawa Prefecture, Japan, using an interpretative approach. This village was the first in Japan to establish ecotourism and successfully balanced coral reef conservation and regional economic revitalization. Semi-structured interviews conducted with social entrepreneurs in 2003, 2004, and 2007 determined that social entrepreneurs could achieve the above successfully by embedding themselves in the local historical, cultural, authoritative, and political contexts. Using this case, this study revealed the process by which social entrepreneurs acquire motivation for eco-tourism and strategic action to create an ecotourism space in embedded multi-layered contexts.

Keywords: Social entrepreneurship, ecotourism, multi-layered approach, institutional entrepreneurship, Japan

Introduction

The purpose of this study is to analyse how social entrepreneurs' embeddedness in multi-layered contexts—the local cultural and historical context, authoritative context, and political context—enables them to participate in ecotourism development.

In recent years, social entrepreneurs have drawn attention as agents for the construction, maintenance, and expansion of ecotourism (Boschee and McClurg, 2003; Ahmad et al., 2014; Swan and Morgan, 2016; Chirozva, 2015). In these discussions, social entrepreneurs have been analysed using a multi-layered approach; accordingly,

they have been perceived as actors empowered to create ecotourism spaces through their embeddedness in diverse contexts: historical, cultural, professional, and political. However, the multi-layered approach used in previous studies does not have a theoretical basis for analysing the behaviour of social entrepreneurs embedded in various contexts.

In this study, I propose an analytical framework that examines social entrepreneurship in ecotourism in terms of entrepreneurs who construct an ecotourism space by embedding themselves in local historical and cultural contexts, authoritative contexts, and political contexts. The framework is based on the new institutional theory and the institutional entrepreneurship concept. Based on this new analytical framework, this study analyses the case of Zamami Village in Okinawa Prefecture, Japan. This was the first village in Japan to establish ecotourism and successfully balance coral reef conservation and regional economic revitalization. This case study shows that social entrepreneurs who are embedded in multi-layered institutional contexts construct an ecotourism space by strategically and appropriately involving stakeholders in order to bridge different contexts.

This study offers three major contributions. First, it presents a theoretical basis for a multi-layered approach to understand social entrepreneurs who construct ecotourism spaces. Second, it clarifies the motivations of social entrepreneurs based on the local cultural and historical context. Third, it reveals the strategic actions social entrepreneurs undertake, through long-term fieldwork.

Social entrepreneurship in ecotourism

Thompson, Gillen and Friess (2017) noted that ‘ecotourism is a normative concept defined and driven by generalized principles constituting local livelihoods and conservation of natural and cultural environments’ (p. 258).

Nor and Kayat (2006) pointed out three criteria that ecotourism must meet: (1) protection of the natural environment, society, culture, and economy; (2) education of host communities, tourists, and businesses; and (3) emphasis on community participation. Based on these normative concepts, ecotourism represents a new form of tourism to ensure social, cultural, and environmental sustainability, rather than short-term and private profits, such as 'responsible tourism, natural tourism, alternative tourism, sustainable tourism, and community-based tourism' (Ahmad et al., 2016, p.39).

In recent years, social entrepreneurs have been attracting attention for their ability to establish, maintain and expand ecotourism. Entrepreneurship was originally positioned as a major concept in tourism research (Burton, 1998; Crnogaj et al., 2014; Williams and Shaw, 2011). Entrepreneurs have the ability to develop the natural environment and cultural heritage as part of the tourism industry and to build a business model that can be monetized. Tourism research focused on entrepreneurs as agents of economic growth who generated economic value and jobs. Entrepreneurs have therefore been defined as actors who identify resource values and business opportunities from the natural environment and cultural heritage, interpret trends in market needs for tourism, and build businesses that combine resources and tourists. Antecedent studies have analysed the behaviour of tourism guides, business owners, city government officials, and non-profit organizations (Harvey, 1989; Raco and Gilliam, 2012; Gillen, 2010; Gillen, Kirby, and van Riems-dijk, 2015).

Social entrepreneurs, however, face a conflict in terms of the inherently different objectives of entrepreneurship and ecotourism: entrepreneurs are motivated to pursue private profits, whereas the objective of ecotourism is to ensure social, cultural, and environmental sustainability. Bacq and Janssen (2011) defined social entrepreneurship as 'the process of identifying, evaluating and exploiting opportunities aiming at social

value creation by means of commercial, market-based activities and of the use of a wide range of resources' (p. 376) and social entrepreneur as 'a visionary individual, whose main objective is to create social value, able at one and the same time to detect and exploit opportunities, to leverage resources necessary to his/her social mission and to find innovative solutions to social problems of his/her community that are not properly met by the local system'(p. 382).

In other words, social entrepreneurs are motivated by their social mission and create new value by building social enterprises that combine diverse resources (Stryjan, 2006; Nicholls, 2008). The results produced by social entrepreneurs are 'a virtual blend of financial and social returns' (Boschee and McClurg, 2003, p.378), and the profits generated from these results must be reinvested in the social mission. The main issue here is whether social entrepreneurs should control the natural environment and cultural heritage as ecotourism spaces, and control stakeholders (Swan and Morgan, 2016).

For example, Chirozva (2015) demonstrated that the economic well-being and self-reliance of villages in the Great Limpopo Transfrontier Park, which straddles the border between Zimbabwe and Mozambique, were enhanced through ecotourism. Social entrepreneurs identified business opportunities with tourists who gathered in the park. In this case, social entrepreneurs helped prevent the structural exploitation of mass tourism caused by existing travel agencies and airlines. They were able to occupy the natural environment, and in the absence of clear legal grounds or government support, maintain cultural heritage and establish ecotourism in collaboration with local residents.

In the same way, Farelly (2012) presented a new category of indigenous social entrepreneurs in New Zealand. Indigenous people, who have historically occupied unique cultures and regions, find business opportunities in tourism. Through their historical and cultural background, indigenous social entrepreneurs can legitimately

occupy a particular culture or natural environment in a way that is independent of mass tourism, and gain the benefits of national independence and protection. Situmorang and Mirzanti (2012) also noted that the creation of community-based schools and scholarships in communities within northern Sumatra, Indonesia, as well as cultural protection programs that provide educational opportunities for local communities, led to the emergence of social entrepreneurs and the establishment of ecotourism. Here, ecotourism by local residents is legitimised with expertise acquired through schools and education. Furthermore, Thompson, Gillen, and Friess (2018) pointed out that the Malaysian government's tourism promotion policy has attracted a large number of tourists to the Langkawi Islands, while the tension between the conservation of the natural environment and the commercial use of tourism resources has created a hierarchical relationship between commercial and social entrepreneurs. Here, social entrepreneurs are born through political struggles based on environmental conservation as an antithesis to the political background promoting mass tourism.

As described above, social entrepreneurs build ecotourism spaces by straddling diverse contexts such as historical and cultural, expertise, and political backgrounds and using them as a source of legitimacy. Of course, promoters cannot rely on only one context to legitimise the ecotourism space. For example, Ahmad et al. (2014) pointed out that the homestay program (Rural Master Plan Malaysia) of the village of Sebuyau, Sarawak, Malaysia, combined local people's will for economic self-reliance and sustainable development; expert and leader education through educational programmes; and support from the authorities, who were invested in the success of this initiative. They showed that social entrepreneurs could build an ecotourism space by combining legitimacy with historical and cultural, expertise, and political backgrounds. In other

words, social entrepreneurs in ecotourism have been analysed using a multi-layered approach.

The multi-layered approach in previous research has shown that social entrepreneurs use diverse contexts to legitimise themselves and construct ecotourism spaces. However, previous research has not provided a sufficient explanation of how social entrepreneurs overcome contradictions among diverse contexts. For example, Lawrence and Wickins (1997) focused on the case of Ecosummer Canada Expeditions, one of the largest ecotourism companies in British Columbia, Canada. This company offered ecotourism tours and had received support from the World Wildlife Fund in 1990. However, in 1992, on an ecotourism tour, a local guide hired for a journey ran short of supplies and shot five polar bears to feed the sled dogs. As a result, the World Wildlife Fund cut off its relationship with Ecosummer Expeditions, and others in this business field criticized the company saying that the service was contrary to ecotourism principles. In response, Ecosummer Expeditions announced that the actions of local Inuit guides fall within the traditional rights of the Inuit to hunt polar bears (Lawrence and Wickins 1997, 309-311). Thus, there is a contradiction between the local culture and the idea of ecotourism. Similarly, if the historical background of a region collides with an education program that trains ecotourism experts, how can social entrepreneurs respond?

Multi-layered approach for social entrepreneurship

How can the process of building ecotourism by social entrepreneurs embedded in a multi-layered context be analysed? To answer this question, multi-layered approaches in previous studies need to have a theoretical basis for analysing these behaviours in various contexts. This study examines the concept of institutional entrepreneurship (DiMaggio, 1988; DiMaggio and Powell, 1991) through the theory of institutional

organization and proposes new analytical framework for understanding the practices of social entrepreneurs in ecotourism.

Institutional entrepreneurship

In previous studies, it has been pointed out that social entrepreneurs are heroic actors with the necessary leadership skills to present a great vision and the negotiation abilities necessary to create collaborations with stakeholders (Osborn, 1998; Nicholls and Cho, 2003; Martin, 2006). To do so, social entrepreneurs must build relationships that are trusted by stakeholders. Social capital theory points out that the resource mobilization capability of social entrepreneurs depends on whether they build respectful, trusting relationships in their embedded networks (Prabhu, 1999; Thompson, Alvy, and Less, 2002). In other words, an actor who has sufficient relational capital can act as a social entrepreneur in a region or community's network. In new institutional theory, the relational capital that can be obtained through embeddedness in the network is described as cognitive legitimacy.

In addition to this cognitive legitimacy, new institutional theory points out normative legitimacy and regulatory legitimacy as sources of legitimation (Scott, 1995). Normative legitimacy, which relies on political systems and authoritative systems, allows actors to prove the correctness of their work through expert and academic evaluations. Regulatory legitimacy, which relies on administrative and legal systems, enables resource mobilization from stakeholders through judicial, patent, and administrative approvals.

Institutional entrepreneurship was proposed as a concept to capture the agency practice of executing the institutional change (DiMaggio, 1988; DiMaggio and Powell, 1991; Lawrence, Suddaby, and Leca, 2011). Since they are embedded in the institutional context, entrepreneurs can identify business opportunities by discovering

contradictions between institutions (Friedland and Alford, 1991), being fringe players of institutional contexts (Leblebici et al., 1991), positioning structural holes (Burt,1992), or at moments of deinstitutionalization and change (Greenwood, Suddaby, and Hinings, 2002). Zimmerman and Zeitz (2002), who introduced the institutional entrepreneurship concept in entrepreneurship studies, made it possible to explain the emergence of entrepreneurship from social or institutional contexts. Especially in entrepreneurial studies, this concept has been used to analyse entrepreneurs who mobilise critical resources needed to build a new business by combining various legitimacies (Kalantaridis and Bika, 2006; McCarthy, 2012).

In recent entrepreneurship studies, institutional entrepreneurship has incorporated multi-layered approaches as an 'understanding of the heterogeneity of entrepreneurial responses to external conditions, as well as demonstrated how structural factors influence entrepreneurial processes at the micro-level' (Wigren-Kristofersen et al., 2011, p.1012). It also helped researchers explain privileged positions in institutions and social networks, and to understand entrepreneurial behaviours as bridging activities across institutional boundaries (Anderson, Dodd, and Jack 2012). For example, Karataş-Özkan (2011) looked at the entrepreneurial learning process of five new entrepreneurs who formed a venture company. They described constructing the venture company as a learning process in which entrepreneurial activity was navigated within the institutional context surrounding the five new entrepreneurs. Each Individual entrepreneurial activities were constructed by leveraging their relational capital for gaining advantage and heterogeneity.

In this way, the institutional entrepreneurship concept has revealed entrepreneurial activities as practices that can be realised by embedding them in multi-layered institutional contexts (Welter, 2011; Welter, Baker, and Wirsching 2019).

By contrast, the multi-layered approach in ecotourism studies has revealed the institutional context as consisting of the historical and cultural, expertise, and political backgrounds available to social entrepreneurs in ecotourism. However, there is a theoretical problem in previous research as social entrepreneurs embedded in the institutional context do not sufficiently explain how they will construct an ecotourism space. On the other hand, the institutional entrepreneurship concept focuses on embedding people in a multi-layered institutional context; thus, people can combine diverse legitimacies to mobilize critical resources for their own business and gain competitive advantage. Therefore, the activities of social entrepreneurs in ecotourism will be understood as institutional entrepreneurship in embedding multi-layered institutional contexts.

Analytical framework

How can social entrepreneurs be analysed using the multi-layered approach?

Maguire, Hardy, and Lawrence (2004) conducted a pioneering study of social entrepreneurship practice based on this institutional entrepreneurship concept through the analysis of two patients with HIV/AIDS who were leading the HIV/AIDS Patient Group in Canada as social entrepreneurs. In the 1980s, HIV/AIDS was an epidemic disease that was publicly believed to only affect homosexuals and haemophiliacs, and pharmaceutical companies were reluctant to develop therapeutic agents because they were unlikely to be profitable. In other words, patients with HIV/AIDS were located in a structural hole that had been hampered by the Canadian healthcare system.

Thus, social entrepreneurs leading the HIV/AIDS Patient Group not only expanded patient mutual aid organizations to national organizations, but also disseminated through the media that HIV/AIDS was an infectious disease that can affect all people (cognitive legitimacy). In addition, by sharing the knowledge accumulated

through the patient groups on how HIV/AIDS is transmitted and how the disease progresses, the social entrepreneurs were able to work with doctors (regulatory legitimacy) and lobby with politicians who well understood homosexuality or drug abuse (normative legitimacy); these efforts led them to having national HIV/AIDS drug development programs. Through this, it can be seen how social entrepreneurs can create a social business to legitimate themselves by being embedded in multi-layered contexts.

Maguire et al. considered the mass media, politicians, parliaments, and government to be multi-layered institutional contexts. In these contexts, social entrepreneurs can be understood to be combining cognitive, normative, and regulatory legitimacy to acquire the resources to build, expand, and sustain social businesses. If social entrepreneurs do not participate in the network within the region or community, they will not be able to obtain cognitive legitimacy. The scientific and professional correctness cannot be proven, and normative legitimacy cannot be obtained, unless social entrepreneurs connect with the academic world and cooperate with experts. Without the support of the government and politicians, it is impossible to obtain regulatory legitimacy such as legal reform and the establishment of a licensing system. In other words, for social entrepreneurs to build, expand, and maintain social businesses, they need to manage stakeholders with critical resources by embedding themselves in multi-layered contexts and combining their legitimacies.

Based on this theoretical view, the behaviour of social entrepreneurs in ecotourism can be considered under the following analytical framework (Figure 1).

First, it is necessary to construct analytically the multi-layered institutional contexts.

Based on the cognitive, normative and regulatory legitimacy in new institutional theory, multi-layered institutional contexts of ecotourism, which have been discussed

earlier, can be organised into three contexts: local cultural and historical context, authoritative context, and political context.

Local cultural and historical context is constructed by human relationships that have formed in a specific region over time. Individuals acquire their identity as a member of the region or community through these relationships. It is possible to achieve cognitive legitimacy by utilising interpersonal relationships and the division of roles established within the relationship (Farrelly, 2012).

Authoritative context is built from professional relationships with those who have the authority to influence others, such as universities, research facilities, and the media. Social entrepreneurs gain normative legitimacy by linking themselves to scientific validity and social justice through collaboration with professional groups（Situmorang and Mirzanti, 2012).

Political context is built from the relationship between the legislature, the national-local government, and political parties. In addition to being able to obtain legal approvals and go to court through legal procedures, social entrepreneurs are also able to gain regulatory legitimacy by creating legal revisions and approval systems that are advantageous to them through their lobbying activities (Thompson, Gillen, and Friess, 2018).

The process of building ecotourism by social entrepreneurs embedded in a multi-layered institutional context can be considered to involve the following specific steps: (1) motivating by local economic independence in a multi-layered context, (2) finding the natural environment and cultural heritage as ecotourism resources, and (3) constructing an ecotourism space in which resources are occupied and used sustainably. This paper presents a case study of ecotourism by social entrepreneurs based on this analytical framework.

Case Study: Establishment of ecotourism in Zamami Village

Research Method

This study approaches the practices of social entrepreneurs in ecotourism using an interpretative approach (Anderson and Starnawska, 2008: Leitch et al. 2010).

Interviews help researchers understand the practices of social entrepreneurs in ecotourism by offering insight into the context in which they acquired the motivation to pursue ecotourism, how they extracted business opportunities and resources from the situation, and how they used the situation to construct a space in which they could utilise resources.

It should be noted that a researcher who interprets the narratives of the social entrepreneur is not an observable, objective, and universal fact. The researcher interprets the phenomenon as a series of context-dependent actions from dialogues with social entrepreneurs involved and reconstructs it into a thick description (Geertz, 1973). In other words, this description is a social reality created through dialogue between researchers and social entrepreneurs concerned. The theoretical significance of qualitative research based on the multi-layered approach is that researchers can review the recognition premises of existing research from dialogues with relevant social entrepreneurs and aim for theoretical development based on reflection. Also, social entrepreneurs understand their own practices and use them as the relevant capital to implement future actions (Gergen, 2009; Steyaert, 2011; Swan and Morgan, 2016).

This study used semi-structured interviews with two social entrepreneurs to record their stories about the problems and solutions they faced. The interviews were conducted in three periods: the peak period of the mass outbreak and extermination of starfish in 2003, the period when a diving business based on self-imposed rules was started under the slogan of ecotourism in 2004, and the period when ecotourism space

was established in the Kerama sea area by the enactment of the ecotourism promotion law in 2007. At each point, two social entrepreneurs were interviewed for two to ten hours; the total interview time reached 40 hours.

In addition, this paper describes the case in the form of interviews with a senior fisherman in Zamami Village, the mayor of Zamami Village, a researcher from an institute located in Zamami Village, and the observation of a meeting held in Zamami Village.

Research site

Zamami Village is located in the Kerama Islands, about 50km west of Naha City by high-speed boat. Comprising the islets of Zamami Island, Aka Island, Geruma Island, Kuba Island, and Yakabi Island, the island has a population of 923 (as of 2019[1]). The primary industry is marine leisure, mainly for diving. Zamami Village is famous as the first successful example of ecotourism in Japan, which was designated in the Ecotourism Promotion Law in 2007.

Zamami Village has an ideal geographical location to run the diving industry. The Kerama sea area, where Zamami Village is located, is recognised as having biodiversity equivalent to the Great Barrier Reef. Zamami Village is 15 minutes away by plane from Naha City Airport and 50 minutes away if taking a high-speed ship from Tomari Port. This makes it simple for tourists from Okinawa to enjoy diving and marine sports in the area. In addition, many diving points in Zamami Village are located in the inland sea surrounded by small islands; even when there is some wind and rain, the islands help keep the waves calm. For this reason, even during the typhoon-prone summer months, dives in Zamami Village are often included in tours. These favourable location conditions contributed to the rapid growth of the diving industry in Zamami Village.

There are approximately 40 diving shops in Zamami Village, and about 100,000 tourists visit there each year to see the rich coral reefs[2]. Diving is a hobby of relatively wealthy people in Japan; and the annual sales per diving shop is between 10 to 20 million yen[3]. Many diving shops have Japanese inns, and tourists stay between two nights and one week to enjoy diving; the direct economic effect is around 4.6 billion yen[4].

The establishment and operation of diving rules, as well as the conservation of coral reefs through continuous monitoring and extermination of acanthaster, a natural enemy of coral reefs, by volunteers from local diving shops, characterize the diving industry in Zamami Village. From 2002 to 2007, when the control activities peaked due to the large number of acanthaster, four to ten divers were mobilised per day; between 2000 and 3000 divers were mobilised over a period of one year to exterminate 116,129 acanthaster. Furthermore, in order to realise the sustainable use of coral reefs, rules were established for the number of visitors per point, mooring methods for ships, and distance for viewing coral reefs. Business operators on and off the island were successful in complying with the rules when diving in the Kerama sea area.

In this process of organizing ecotourism, the divers of Zamami Village not only take advantage of the legitimacy of being embedded in the local cultural and historical context of Zamami Village, but they also embed themselves in the authoritative context created through links with research institutions, and in the political context created through cooperation with local governments who want to promote tourism and environmental conservation.

The author started fieldwork in Zamami Village over 10 years, starting in 2003. This fieldwork covered a total of 50 people, including two social entrepreneurs who were the leaders of diving associations, divers who are association members,

researchers from Zamami Village and neighbouring local governments, universities, and other research institutes.

Motivating ecotourism from embedded Local cultural or historical context

This section will focus on how the two social entrepreneurs in Zamami Village gained their motivation for ecotourism. These social entrepreneurs were motivated by historical and cultural contexts to construct ecotourism space. Understanding this requires an understanding of the local cultural and historical context in which social entrepreneurs are embedded from the industrial history of Zamami village before the diving industry was established.

Until the end of World War II, Zamami Village was one of the largest fishing bases in Japan, boasting a large catch of bonito. Bonito taken in Zamami Village is boiled, dried, smoked, and processed into katsuobushi (dried bonito). Even today, katsuobushi produced in the vicinity of Zamami Village is branded as kerama-bushi and recognised as an essential ingredient in Japanese cuisine.

The fertile fishing ground for bonito in the Zamami Village area was discovered by coincidence when bonito fishermen from the Japanese mainland arrived after a shipwreck in 1885. The shipwrecked fishermen, after repairing their ships with the help of the villagers, caught significant numbers of bonito as they returned to the mainland. Some say that the sales of bonitos after this shipwreck exceeded their annual sales, even after deducting the cost of repairing the shipwrecked ship and living expenses in Zamami.

Seeing these earnings, the people of Zamami Village raised funds in the village to establish a fishery cooperative in 1900. They purchased four ships and started a fishing operation. In 1912, there were ten fisheries cooperatives in the village, and most of the islanders became union members. In those days, fishery cooperatives were a kind

of cooperative society similar to the communist system, distributing profits from the bonito industry equally to members of the cooperatives, and undertaking collective purchase and provision of clothes and food.

Although the profit was distributed equally, the amount was very high for that time. Before World War II, Zamami Village was able to earn a year's worth of income simply by fishing bonito from June to August (the usual bonito fishing season). It was then processed into katsuobushi and shipped to major consumption areas such as Tokyo and Osaka. An elderly fisherman who knew the income at that time said:

> If we work for three months, we can spend a year playing at Tsuji[5] on Naha. Zamami's bonito fisherman was very rich, so they could send all his children to high school[6]. After graduating from school, the most important thing about the future was which fisheries cooperative association we joined in the village.

However, these fisheries cooperatives were dissolved soon after World War II. This was not due to the war; a lack of resource management meant that the bonito had been overfished for decades. There were ten unions before the war, but after the war, repeated mergers and closures meant that there were only two remaining.

Therefore, the fishermen of Zamami Village tried to shift to the pelagic fishery to the Pacific Ocean in search of a new fishing ground. As they sent young people to a fisheries university on the mainland to learn how to fish bonitos in the Pacific Ocean, the two associations built a large fishing boat for pelagic fishing with ice making and freezing functions using the funds they had reserved. On their first voyage in 1974, however, they entered Philippine waters without permission, and their fishing boat was seized by the Philippine Navy. This incident led to the temporary dissolution of the fisheries association and the loss of the main industries of Zamami Village. For the next twenty years, young people moved to Naha, Tokyo, and Osaka in search of jobs. By the

time the diving industry was established in the early 1990s, the population of Zamami Village had been halved.

In Zamami Village, which had lost its bonito, H.M and K.K developed diving as a new main industry. They were born after World War II, and by that time the bonito industry in Zamami Village had already declined. In their childhood, they left Zamami Village with their parents and lived in the suburbs of Naha; they returned to Zamami Village for long vacations in summers and winters to spend time with their grandparents who remained in the village. At that time, the people of Zamami Village made a small living in restaurants and guest houses (private homes that runs inn providing room and board) for sea bathers and fishermen as well as fishing and farming in the coastal waters where day trips were possible.

There was a custom in Zamami Village that one of the brothers (usually the eldest son) would inherit the family's house and grave. When their parents retired, H.M and K.K had to return to Zamami Village to take over their family homes and graves, even though the industry had been lost. In order to survive on Zamami Village without the bonito industries, it was necessary to create jobs within the village. H.M and K.K focused on the diving business. In the 1970s, U.S. soldiers and some wealthy people came to Zamami Village to enjoy diving. They negotiated with local fishermen to rent boats for this purpose. During Japan’s bubble economy in 1985, the development of resorts in Okinawa Prefecture developed and diving became a new, popular leisure activity. Divers from a diving club at a university in Tokyo were the first to discover the tourist value of coral reefs in the Kerama sea area[7]. The diving spots they developed were introduced in Japanese diving magazines, and soon Zamami Village was visited by many divers. Some divers during this period moved to Zamami Village in the 1990s, and some of them became diving business operators.

H. M. and K. K, who were born in Zamami Village and lived in fishing, agriculture, lodging, and fishing boats, soon realised the potential profits of the diving business. In Zamami Village fishery at that time, ships were operated in the early morning; even if fish were caught, the price was often equivalent to the price of the boat's fuel. Fish is a market commodity, and the unit price per kilogram fluctuates greatly[8]. In fact, when the author visited Zamami Village for the first time in 2003, there were only two people who made regular income from fishery in Zamami Village, and these people also worked in guesthouses or taverns. Diving, on the other hand, can generate 10,000 to 30,000 yen per person per day. In addition, if a diving shop is attached to a guesthouse, accommodation fees can be expected as income. Diving depends on the weather and sea conditions, but in the case of a diving shop with its own ship, it is possible to earn more than 10,000,000 to 20,000,000 yen in sales in about four months, usually from April to August. For H.M. and K.K., who own their own boats and are familiar with the location of the fishing reefs and the complex tidal currents in the waters around the Kerama Islands, the diving industry was very lucrative and easy to start[9].

> I graduated from college and worked in Tokyo. My parents are getting older and someone has to take over my house and grave. I am the eldest son, and I had some lingering attachment to life in Tokyo, but someone had to return. When I returned, I found that if I took the boat from morning still noon, it would only cost me the fuel of the ship. I used to take the bathers to an uninhabited island and grow vegetables in the garden, but it was all I could do to maintain my life. (H.M)

> When I came back to the village, entertainers and American soldiers often came diving. It was about 100,000 yen after chartering a boat for one day. We made good sales. We were familiar with fishing and knew where the big coral reefs were and where the fish were, so we were good guides. In the late 1980s, there were a lot of college divers, and eventually they started running diving shops in Zamami Village, and I thought this would be a business. That's why they renovated the

> main building into a hotel, converted the fishing boat into a diving boat, and opened a full-scale diving shop (K. K).

At this point, H.M. and K.K. were entrepreneurs who focused on the diving business, which earned more than fishing, and invested resources to expand business opportunities. But facing a crisis that threatened the survival of the diving industry, they gained motivation to become social entrepreneurs.

A new problem for H.M. and K.K. was the feeding damage to coral reefs by acanthaster. In 1989 and 2002, large outbreaks of acanthaster in Okinawa caused devastating damage to coral reefs. This was a serious concern for the people of Zamami Village, who remembered that the economy of the island was destroyed by the dissolution of the Fisheries Cooperative Association due to the depletion of bonito in the sea. Zamami Village, which was being revived by the diving industry, needed to exterminate acanthaster and protect its coral reefs to avoid losing its key industry again and return to decline. As a result, H. M. and K. K, were forced to eliminate acanthaster and preserve coral reefs.

> Once upon a time, this village failed by catching all the bonito. Now we don't catch fish, but we make money by diving in coral reefs, and we can't repeat the same mistake by leaving acanthaster unattended. If we can't earn enough to dive, we can't raise your children in the village, and we can't keep the houses and graves. (K. K.)

> I think we should not repeat the business like fishing in the old days, which is ‘if you finish it, it's done’, in a diving shop. That's no longer the case. I think we should change our way of thinking and protect coral reefs. Coral reefs are sure to regenerate if you exterminate and acanthaster. The customers who love the nature of Zamami Village are coming, so if we don't protect the coral reef, the customers will leave. (H.M.)

Born in Zamami Village, H.M. and K.K. were deeply embedded in the local cultural and historical context of Zamami Village. Therefore, when faced with the crisis of a massive outbreak of acanthaster, they could not choose to leave the village; they needed to remain in order to keep their ancestral family homes and graves. On the other hand, in the local cultural and historical context built around fisheries, it was customary to search for new fishing grounds after fish had been caught.

However, H.M. and K.K. felt that closing the diving shop and exploring the next business would pose a great risk; they shared the memories of the collapse of the fisheries cooperative when they sought new fishing grounds in the deep sea. Therefore, H.M. and K.K. needed to think of ways to use coral reefs sustainably, rather than using them for short-term gain. At this moment, H.M. and K.K. gained motivation to construct ecotourism space as social entrepreneurs. In other words, being deeply embedded in the local cultural and historical context, H.M. and K.K. were able to recognise the outbreak of acanthaster as a crisis affecting the survival of the village. Furthermore, knowing the cause of the collapse of the bonito industry in the past made it possible to focus on sustainability use of coral reef by reviewing the custom 'if you do all you can, you can change the fishing ground' in the local cultural and historical context.

Construction of Ecotourism Space in Zamami Village: by embedding stakeholders with local cultural and historical context and by bridging social entrepreneurs to authoritative context

In order to protect coral reefs from the feeding damage of acanthaster, it was necessary not only to exterminate acanthaster intensively at the point of the outbreak, but also to periodically patrol the sea area where coral reefs are located and monitor the state of corals and the occurrence of acanthaster[10]. The only way to deal with this problem was

to eliminate the acanthaster one by one by mobilizing a large number of people[11]. However, the Kerama area, where diving shops in Zamami Village were located, is vast; it was impossible to eliminate acanthaster by covering all of them. Therefore, it was decided to select a huge coral reef which could be used as a tourist resource and to designate it as a marine protected area (MPA). This prohibited its use in diving and in order to exterminate acanthasters. H. M. and K. K. planned to establish MPAs at the west end of Akeina and the east end of Amuro Island; their use for fishing and diving was totally banned within three years (Figure 2)[12].

In this time, what H. M. and K. K. faced was that diving shop owners were not willing to cooperate due to differences in individual interests.

The diving shop owners in Zamami were divided into two groups: those who were born and raised in Zamami Village, like H. M. and K. K., and immigrant diving shop owners who had moved from Tokyo or Osaka. Diving shop owners born in Zamami Village recognised that the extermination of acanthaster was the job of Zamami Village Fishery Cooperative. This cooperative had been reorganised after World War II; they received a subsidy from the prefecture to exterminate acanthaster. Immigrant diving shop owners may have believed that if coral reefs in the vicinity of Zamami Village were destroyed, they could move to other areas with coral reefs, such as Miyako Island or Ishigaki Island, and continue with their operations.

However, H.M and K.K focused on the Zamami Village Fishery Cooperative. All the divers born in Zamami Village were originally fishermen and belonged to the Zamami Village Fishery Cooperative. This organization was highly coercive because of the historical background of the bonito industry. H. M. and K. K. were former directors of the Zamami Fisheries Cooperative. Therefore, under the pretext of protecting fishery

resources, Zamami Village Fishery Cooperative decided to spend more than the upper limit of the subsidy and voluntarily recommend the extermination of acanthaster.

Of course, not all diving shop owners agreed with this decision. Specifically, because of immigrant diving shop owners not joining the Zamami Village Fishery Cooperative, they opposed the establishment of the MPA by the fisheries cooperative and wanted to continue diving in this area. Only fishermen can join the Zamami Village Fishery Cooperative. Therefore, immigrant diving shop owners could not join the fisheries cooperatives. There was no reason for them to allow the establishment of the MPA. Thus, since they were board members of the Zamami Village Fishery Cooperative, H.M. and K.K. planned to involve the immigrant diving shop owners in the MPA by soliciting the cooperative. Once they were part of the cooperative, H. M. and K. K. established a separate set of qualifications for associate members in the Zamami Village Fishery Cooperative and extended the membership condition/qualifications so that non-fishermen could also join the cooperative.

There were two ways to persuade these divers. Business owners who had gotten married and had children in Zamami Village were easier to persuade. K. K. said:

> If you learn how to catch fish, you can feed your wife and children when the coral reefs are destroyed and you can't dive. The seniors will teach you how to catch fish now, so you had better enter. Bonito is no longer caught, but if you learn how to catch fish, you can feed your children and survive even in the worst case. （K. K.)

It was more difficult to persuade single immigrant diving shop owners. In order to build kinship, a woman of the same age on the island was introduced as a spouse to reluctant shop owners. As mentioned above, in Zamami Village, one of the brothers must succeed the house and the tomb of the family. Even for men from Tokyo or Osaka, entrepreneurs who managed a successful diving business on the island were suitable

partners for people in Zamami Village who had only one daughter. After that, through persuasion by relatives, they would join the fishery cooperative of excellent immigrant diving shop owners who could bear the future of Zamami village.

By having immigrant diving shops owners in Zamami village join the fisheries cooperative association, K.K. was able to convince immigrant diving shop owners who were against the MPAs:

> Even elderly fishers do not operate in MPAs in accordance with the agreement of Zamami Village fisheries cooperative. You are a member of the fisheries cooperative and a member of the village, so please cooperate with the MPAs.

This was made possible by embedding divers into the local cultural and historical context of Zamami Village. This included the history of how the village had once lost its bonito industry to overfishing, and that fisheries cooperatives were recognised as the central organization that integrated the villagers. H. M. and K. K. had created new social value for the Zamami Village Fisheries Cooperative. As pointed out in the previous section, most of the diving shop owners born in Zamami Village were members of the Zamami Village Fishery Cooperative. Although there were a few people who make a living only by fishing in Zamami Village, only the Fishery Cooperative managed the use of the sea, even now. Because of this, immigrant diving shop owners who joined the Zamami Village Fisheries Cooperative were forced to follow that persuasion by K. K.

H. M. and K. K. were able to construct and operate MPAs in 1998. The Zamami Village Fishery Cooperative successfully exterminated a total of 116,129 acanthaster by mobilizing between four and ten divers a day, between 2000 and 3000 divers a year, from 2007 to 2012, when the number of acanthaster was at its peak.

The next problem was that the diving shop owners were never permitted to join the members of the Zamami Village Fishery Cooperative. Needless to say, the establishment and operation of the MPAs through the Zamami Village Fishery Cooperative not only makes it difficult for the diving shop owners who refuse to be embedded in local cultural-historical context to create legally binding relationships, but it also creates the risk of being challenged in court on the legal grounds that fishing rights do not arise when viewing coral reefs. So, H. M. and K. K. decided to set up a Diving Association. As Zamami Village consists of three islands, Zamami Island, Aka Island, and Geruma Island, K. K. established the Aka-Geruma Diving Association in 2001 and H. M established the Zamami Diving Association in 2002, with the aim of having the diving shop owners as the chairpersons. The diving shop owners in Zamami Village had been strongly recommended to join the Diving Association, and a system was established in which approval by the Diving Association was required for the opening of a new diving shop in Zamami Village.

In this time, one problem in promoting these Diving Associations was that they had no legal grounds for controlling the diving shop owners. Except for fishery rights, there was no legal basis for monopolizing the use of specific sea areas by specific operators in Japan. In the case of diving businesses, the viewing of coral reefs is an activity not granted with the same rights as fishing rights, not even to the members of fishermen's cooperatives. Therefore, some diving shop owners, especially those who were not members of fishermen’s cooperatives, opposed the establishment and operation of MPAs because it has no legal support.

In order to bring them under control, H. M. and K. K. had to acquire different legitimacy actions. Hence, H. M. and K. K. focused on the Akajima Marine Science Laboratory (AMSL), established in 1988 and continued its activities. At its inception,

this research facility was irrelevant to the diving business of Zamami. However, as the diving industry in Zamami Village was pressed by the need to conserve the corals due to the mass outbreak of acanthaster, the AMSL's academic knowledge and research results became important. Similarly, the AMSL's on-going monitoring of coral reefs is not possible due to personnel and budget constraints; therefore, the ability to obtain extensive data on coral reefs and acanthaster in the Kerama sea area through daily dive cooperation with diving shop owners was implausible. As a result, a partnership between the Diving Association and AMSL was established because of the need to eradicate acanthaster and conserve the coral reef.

The key to this partnership was the normative legitimacy of MPAs.

Y. T., researcher at AMSL, reported that the coral reef destroyed by the MPA was recovered by 30% to 50%, and that while the MPA in the eastern tip of Amuro Island prohibited all divers and fishermen from entering the reef, it was destroyed without anyone noticing the huge outbreak of acanthaster. While admitting the effect of MPA, he pointed out the importance of periodic monitoring based on the premise of careful diving (Taniguchi, 2004). In addition, Y. T. presented his research findings that coral reef eggs laid on MPA drift ashore on the main island of Okinawa and settle there (Taniguchi, 2005). The results of this research have scientifically proven that the people of Zamami village established MPA, selected healthy corals that were ready to lay eggs, and exterminated acanthaster intensively to protect the corals from feeding damage.

The scientific evidence created through this collaboration with AMSL gave H. M. and K. K two powers. First, because of the absence of legal grounds, it had become possible to urge divers on the island who were otherwise difficult to persuade to comply with the MPA because of the importance of their scientifically based activities. Second, the MPAs coral reef conservation activities led to the conservation of coral reefs on the

main island of Okinawa, which led to the recognition of diving shop owners in Zamami Village as social entrepreneurs and the people who protected the sea in Okinawa. From around this time, H.M. and K.K. became aware of themselves as bearers of ecotourism and began to speak about the revitalization of Zamami Village based on ecotourism.

> Until now, we have mainly exterminated starfish, but we also have to consider land management. When a typhoon comes and it rains heavily, soil and sand flow out and coral reefs get damaged. If ecotourism is to be carried out, the problem of water on land must be considered. (H. M.)

> Now, ecotourism is worth living for me. By implementing ecotourism, the company aims to provide higher quality services and create a high-value-added business with slightly higher diving fees. That differentiates them from the rest of the world, and the higher they are, the more they can invest in coral reef conservation. (K. K.)

Thus, in cooperation with AMSL, H. M. and K. K. utilised the authoritative context for those that could not be influenced by the local cultural and historical context, and gained the position of social entrepreneurs. This was based on a mixture of authoritative, local cultural, and historical context, enabling control over diving shop owners in the village.

Expanding ecotourism space by embedding Political context: Establishment of the Kerama Sea Area Conservation Conference and Enactment of the Ecotourism Promotion Law

By using the local cultural and historical context with the authoritative context, H.M. and K.K. constructed an ecotourism space as MPAs in Zamami Village. However, the success in MPAs created a new problem: the diving shop owners in Naha were intruding into the Kerama Sea area. H. M. and K. K. addressed this issue by accessing political contexts and expanding an ecotourism space.

The establishment and operation of the MPAs, the continuous eradication of acanthaster, and the successful conservation of the coral reef made it clear that the diving shop owners in Naha were now operating in the Kerama Sea area.

The diving shop owners in Naha used a large cruiser to carry dozens of divers to diving spots. As a result, at a good diving point, hundreds would dive into the sea every day to see the reef. At that point, the problem was not just the number of divers. Many divers from Naha were beginners, and due to technical problems and ignorance, they damage coral as they scuba dive. Moreover, operators in Naha take many customers to diving spots at once, making it difficult for instructors to pay enough attention to coral conservation.

On the other hand, many of the customers who use the Zamami diving business are regular customers and experienced divers who understand the policies of the Zamami diving businesses for coral conservation. These policies included not touching coral when diving, not breaking coral by getting too close to it, not kicking up sand with fins, and enjoying diving with care.

The problem that H. M. and K. K. faced was how to control the influx of divers from Naha. At first time, H.M. and K.K. asked diving shop owners in Naha to cooperate in the use of the Kerama Sea area based on the voluntary rules and the extermination of starfish under the name of Zamami Fisheries Cooperative Association and Diving Association. This request failed for two reasons. First, for diving shop owners in Naha, these requests could be ignored in the absence of a legal basis to limit the use of coral reefs for diving. Second, because there was no diving association in Naha governing the owners of diving shops, H. M. and K. K. had to persuade each owner. Since there are more than a few hundred diving shops in Naha, this was an impossible task.

At that time, there was no legal basis in Japan for a specific organization to exclusively use a specific natural environment or cultural heritage for ecotourism. H. M. and K. K. had succeeded in constructing an ecotourism space in Zamami Village through the use of fisheries cooperatives and diving associations by embedding the owners of diving shops in the village into local cultural, historical and bridging authoritative contexts.

Therefore, H. M. and K. K. were willing to expand ecotourism space in which diving shop owners in Naha city could voluntarily refrain from exercising their legally recognised rights. To do this project, they focused on the local government around the Kerama Sea area.

The local government in that area was constituted by the Zamami Village Office, Tokashiki Village Office adjacent to Zamami Village, and Naha City Office. Zamami Village and Tokashiki Village aimed to increase the number of tourists and promote regional development by promoting diving businesses in the Kerama Sea area. Similarly, Naha City focused on diving business in the Kerama Sea area to promote tourism in Naha city. In other words, the local governments around the Kerama Sea area aimed to effectively utilise coral reefs in the area as tourism resources.

H. M. and K. K initially opposed these policies from the standpoint of ecotourism. They feared that a flood of divers would destroy the coral reef. H. M. and K. K had envisioned that the number and quality of tourists would be maintained and that diving fees would be raised in the name of coral reef conservation and that some of the accumulation would be used to fund conservation activities.

However, H. M. and K. K realised that they could not legally stop diving shop owners in Naha City from entering the Kerama Sea area. Therefore, H. M. and K. K

aimed to embed diving shop owners in Naha City into the political context by organizing Kerama Nature Conservation Conference.

Kerama Nature Conservation Conference was established in 2007 with the aim of conserving the natural environment and promoting sustainable use of the Kerama Sea area, that is, promoting ecotourism, through the involvement of Zamami Village Diving Association and Aka-Geruma Diving Association with the Zamami Village Office, Tokashiki Village Office, and Naha City Office. This was a linguistic strategy made possible by H. M. and K. K. The mayors and village headman of local governments with five-year terms were seeking to increase the number of tourists as a short-term achievement to win the election. As long as the use of the Kerama Sea area was permitted by law, mayors and village headmen could be restrained from trying to increase the number of tourists in their bid for re-election. The norm of ecotourism, which aims to achieve both environmental conservation and sustainability and regional development, was not only to prevent an increase in the number of tourists because of its ethical correctness, but also to demonstrate their achievements in realizing the first ecotourism in Japan.

For this purpose, the Kerama Nature Conservation Conference appointed the village headmen of Zamami and Tokashiki as advisers; the secretariat also appointed the head of the administrative division in Zamami Village Office and Tokashiki Village Office. The Diving Association in Zamami-Village established a system to monitor the conservation and use of coral reefs based on voluntary rules concerning the extermination of acanthaster and diving.

Voluntary rules, led by H. M. and K. K, have been developed by a group of trial-and-error divers in Zamami Village. Specifically, the following rules are in place to ensure that the coral reef receives as little burden as possible and that the diving

business was operated safely: (1) two concrete blocks and two mooring buoys were installed on the sandy seabed near the diving point, and the number of vessels that could accessed them at one time was restricted; (2) voluntary rules were established such as rotating closure of multiple diving spots and restoration of coral reefs; and (3) all guides were required to obtain a diving certificate. These voluntary rules not only achieved results in the conservation of coral reefs in the Kerama Sea area, but also acquired scientific evidence through a partnership with AMSL. Even if the free use of the Kerama Sea area was recognised as an authority by law, it was difficult to refute the observance.

H. M. said:

> We have a track record of protecting not only Zamami Village but also the coral reefs in Naha with scientific evidence. Once the Kerama Nature Conservation Conference is established, it will be difficult to break our own rules and make money in the Kerama Sea area. No longer, headmen have decided to promote regional development through ecotourism. (H.M)

What is noteworthy here is that the Kerama Nature Conservation Conference allowed Naha City Office to participate as a board member on the condition that it would establish a diving association in Naha City, observe the voluntary rules, and participate in the extermination of acanthaster. The purpose of this project was to develop a route for negotiations between the headmen of Zamami and Tokashiki for the sustainable use of the Kerama Sea area by having diving shop owners in Naha City manage under the responsibility of the mayor of Naha City.

K. K. said:

> We allowed Naha City to participate in the Kerama Nature Conservation Conference because we wanted them to organise diving shop owners in Naha. If

> they are organised, ecotourism can be carried out in the entire Kerama area. Then they will not have to come to Zamami Village far away and do business. (K.K.)

The aim of establishing the Kerama Nature Conservation Conference can be summarised in the following three points.

First, under the new concept of ecotourism, a system should be established in which diving businesses operating in the Kerama Sea area voluntarily cooperated in coral reef conservation by utilising the political power of the regional government.

Second, by defining the excessive use of the Kerama Sea area by divers in Naha City as a problem that impedes the realisation of ecotourism, and by changing the dimension to a political issue that should be resolved through negotiations between the headman of Tokashiki Village and the mayor of Naha City, the control of divers in Naha City should be attributed to the administration of Naha City.

Third, by establishing a system in which the diving association in Zamami Village observes the voluntary rules and monitors the extermination of acanthaster, the possibility of mobilising divers in Tokashiki Village and Naha City for coral reef conservation activities was gained.

Discussion

This paper presents an analytical description of the process of ecotourism development by social entrepreneurs embedded in a multi-layered context, based on a long-term fieldwork in Zamami Village.

The establishment of ecotourism space in Zamami Village took three steps (Figure 3): (1) Gaining motivation as a social entrepreneur on embedded local cultural and historical context, (2) constructing ecotourism space by embedding stakeholders in local cultural and historical context and bridging shop owners to authoritative context, and (3) social entrepreneurs embedding themselves in a political context to expand

ecotourism space for all Kerama Sea area. Social entrepreneurs have provided opportunities and tools for controlling stakeholders through local cultural and historical, authoritative, and political context of the region. The strategic action taken by social entrepreneurs in Zamami Village to construct ecotourism space can be summarised as follows.

First, H. M. and K. K gained motivation as social entrepreneurs from embedded local cultural and historical context. They initially viewed the diving business as a job for earning money and had only an entrepreneurial motivation. However, from local cultural and historical context, they gained the motivation of social entrepreneurs to work for the conservation of coral reefs in response to the crisis of an outbreak of acanthaster.

Second, social entrepreneurs constructed ecotourism space by embedding diving stakeholders in local cultural and historical context and bridging themselves to authoritative context.

This step is divided into two sub-steps. (1) Based on the local culture and historical context of Zamami Village, social entrepreneurs found the Zamami Fisheries Cooperative to be an effective tool for establishing MPAs. Immigrant diving shop owners were uncooperative in establishment of MPAs. Then, social entrepreneurs emphasised to immigrant diving shop owners to learn fishing in order to raise children in Zamami Village even after coral reefs were destroyed, and made them marry women on the island, thereby embedding them in the local cultural and historical context and building cooperative relationships.

(2) Social entrepreneurs mobilised when diving shop owners refused to join Zamami Fisheries Cooperative by bridging themselves to authoritative context. The problem with the establishment and operation of ecotourism space in Zamami Village

was that social entrepreneurs could not completely control the diving shop owners in Zamami Village. Specifically, social entrepreneurs could not persuade the diving shop owners who refused to join Zamami Fisheries Cooperative to cooperate with MPAs because there was no legal basis to prohibit the operation in a specific sea area. Therefore, social entrepreneurs of Zamami Village cooperated with AMSL to scientifically prove that the establishment of MPAs is effective for coral reef conservation. By bridging to authoritative context, they could gain the power to legitimise ecotourism space beyond the legal basis.

Social entrepreneurs understand the interests of stakeholders and the context in which they are embedded, and then use the context in a way that realises the interests of stakeholders, leading them to expanding ecotourism space. In the absence of legal grounds, social entrepreneurs in Zamami Village were faced with the need to prevent the overexploitation of coral reefs by divers in Naha, which operate separately in the Kerama Sea area. Social entrepreneurs focused on the fact that the mayors and villages headmen around the Kerama sea area had an interest in realising regional development through tourism. Therefore, in order to get them involved, social entrepreneurs created the Kerama Nature Conservation Conference based on the realisation of ecotourism.

Conclusion

This study has described a process of constructing ecotourism space by social entrepreneurs in multi-layered institutional contexts under an interpretive methodology. The theoretical contribution of this description can be attributed to the following two points.

First, it revealed that the motivation of social entrepreneurs stems from a process of reflection, which incorporates an embedded institutional context and is triggered by a crisis of their own interests. As previously noted, H. M. and K. K. were

entrepreneurs who saw diving as their source of income until they faced a mass outbreak of starfish. However, in the face of a crisis in the sustainability of the diving business, they reflected on the local historical and cultural context and decided to construct an ecotourism space for coral reef conservation. Of course, this context is not limited to a local cultural or historical context. As pointed out by Situmorang and Mirzanti (2012) and by Thompson, Gillen, and Friess (2018), it may also occur when embedded in authoritative or political contexts. The motivations of social entrepreneurs in ecotourism are thought to arise from reflective considerations from institutional context in which they are embedded.

The second theoretical contribution is the discovery of a strategic action by social entrepreneurs to create an ecotourism space under multi-layered contexts. In previous studies, the context in which social entrepreneurs are embedded has been seen as an institutional environment that empowers them. Therefore, previous research required a multi-layered approach because it was impossible for social entrepreneurs to rely solely on specific contexts in creating an ecotourism space. Using a multi-layered approach, this paper describes the process by which a social entrepreneur embeds stakeholders in his or her context, bridges themselves to a new context, and mixes these to create and expand an ecotourism space. That is, the practices of social entrepreneurs in ecotourism can be seen as improvisations that are adapted to multi-layered contexts (Baker and Nelson, 2005).

The final theoretical contribution of this study is to capture information about social entrepreneurs who build ecotourism spaces under a multi-layered approach. Previous studies have explained the role of social entrepreneurs in building ecotourism from historical, cultural, professional, and political contexts. As Ahmad et al. (2014) pointed out, social entrepreneurs build ecotourism through embedded relationships in

these multi-layered contexts. This paper then presents a new analytical framework for understanding the practices of social entrepreneurs as it constructs ecotourism spaces in multi-layered contexts. The multi-layered approach of this paper will reveal new strategic actions of social entrepreneurs who construct ecotourism spaces in other fields.

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Figure 1.

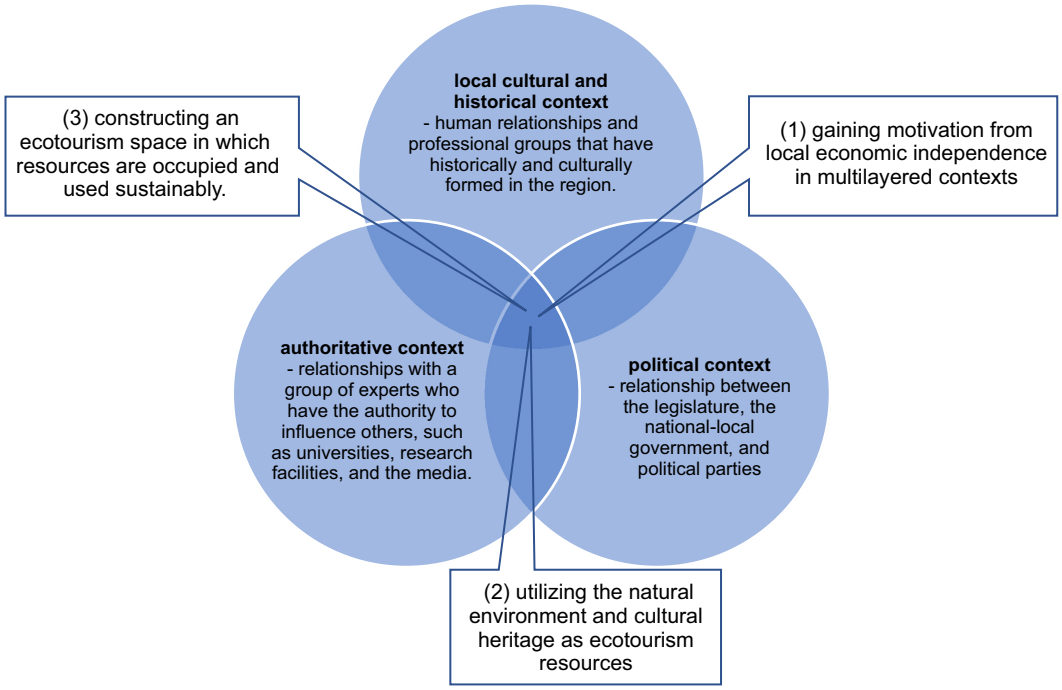
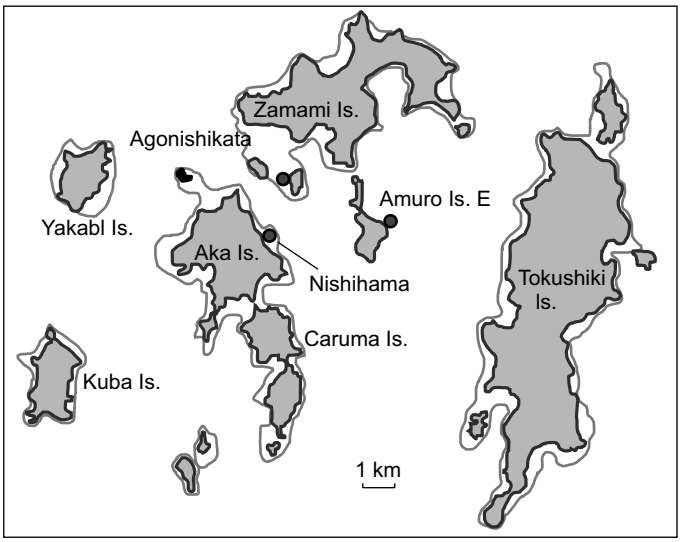
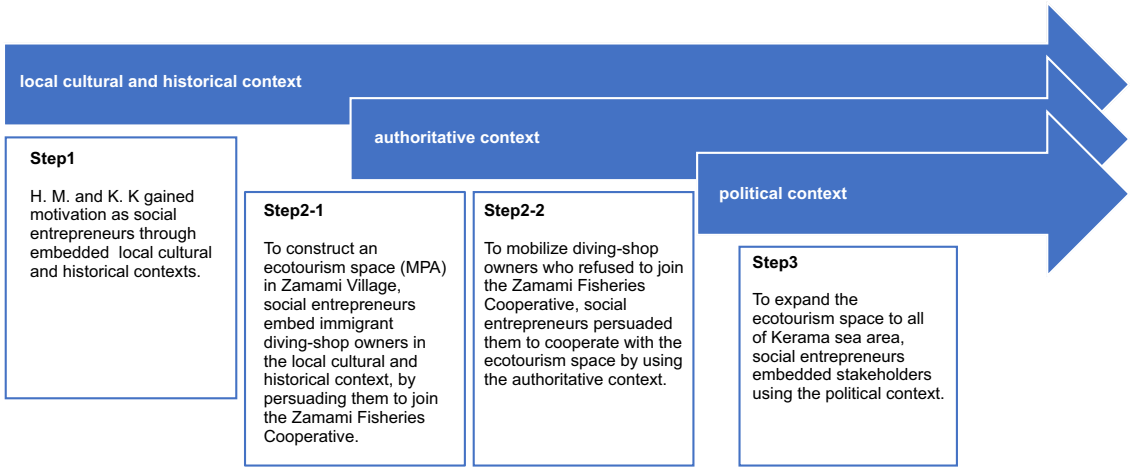


Figure 2.



From Kakuma (2007), p. 100. The position of MPA is indicated by ● in the map.

Figure 3.



[1] https://www.vill.zamami.okinawa.jp/info/zamami.html

[2] The number of divers is based on statistics compiled by the Okinawa prefectural government.

[3] The average annual income in Okinawa Prefecture announced by the Ministry of Health, Labor and Welfare in 2018 was 3.69 million yen.

[4] Assuming that the diving fee is 10,000 yen for 1 day, the accommodation fee is 8000 yen for 1 night, and the meal and souvenir expenses during the stay are 10,000 yen; this is a rough estimate when 100,000 tourists visit the island for 3 days and 2 nights on average.

[5] It is the largest entertainment district in Okinawa Prefecture.

[6] The high school enrolment rate at that time was about 30%. In Japan at that time, high school students were treated at par with today's university graduates.

[7] Even today, people who learned diving during this period and visited Zamami Village are the most frequent repeat visitors.

[8] Zamami Village does not have a fishery market, and the lack of a supply system to meet the needs of tourists visiting Zamami Village is another reason for the decrease in the number of Zamami fishermen.

[9] In Zamami Village, many fishermen have a diver's license because they have traditionally practiced diving fishing.

[10] The Ministry of the Environment and the Okinawa prefectural government, which were concerned about an outbreak of acanthaster, tried to promote the extermination of acanthaster by providing subsidies to local fisheries cooperatives. However, each fishery cooperative in Okinawa Prefecture recognized this subsidy as a compensation measure for the destruction of coral reefs, and they only exterminated acanthaster up to the maximum amount of the subsidy. In fact, fishery cooperatives around the country not only exterminated acanthaster only when they could get a budget, but also exterminated acanthaster efficiently only when a large number of acanthaster were found, because the acanthaster themselves were sold for cash. It has been pointed out that the acanthaster has usually finished spawning by the time a budget is fixed and the budget can be executed (June); this further prevents the effective extermination of acanthaster.

[11] Exterminating acanthaster was a difficult task. First, as in the case of pest control in agriculture, it is difficult to exterminate acanthaster with drugs. Overseas, there have been cases of acanthaster extermination using formalin. However, the use of such chemicals has the potential to damage coral reefs. On the other hand, coral worms are the natural enemy of acanthaster larvae, so that in coral reefs where healthy corals are clustered, it is unlikely that there will be an abundance of acanthaster. On the other hand, as a diver in Zamami Village states, "acanthaster attacks a weakened coral". Acanthaster migrate from place to place in search of an environment conducive to life. Therefore, protecting healthy coral reefs is the most important issue from the viewpoint of resource management.

[12] Corals are living organisms, and strong and healthy individuals survive. Corals are a renewable tourism resource if conditions such as water quality and water temperature are met. It is impossible to protect all the coral reefs scattered around the Kerama Sea area against the acanthaster, which migrate to the coast, but if the corals are in a state where they can lay eggs, there is a possibility that the coral reefs will be restored. Corals are the main natural enemy of acanthaster larvae, and the survival of healthy corals leads to coral reef conservation in a double sense. Thus, H. M. and K. K chose to protect healthy corals (of course, it is also an important diving spot).