

# International Nature Reserves and Local Inhabitants: The Case of the “Wise Use” of Ramsar Wetlands in Japan

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## Abstract

This paper discusses the relationship between international nature reserves and local inhabitants through an examination of the wise use debate pertaining to Ramsar wetlands in Japan. Definitions of wise use are abstract, and only concretized through examples of best practice, which wetland stakeholders identify based on their own perceptions of wise use. Practices that existed before registration can be recognized as wise use after registration, thus affirming current practice, resulting in little change following registration, and leading to indifference. However, tourism is recognized as wise use and ecotourism is increasing, as is the tendency to connect registration to regional improvement. Yet when local residents pursue such strategies, there is the potential to deviate from the convention’s original intentions. Although this may render the extra-local logic of the convention meaningless, it may also help residents come to a consensus without contentious debate, thus affirming the relationship between residents and wetlands. The abstract ideals of the convention also inform local environmental education and thereby shape how residents understand their relationship to the wetlands.

**Key words:** Ramsar Convention, wetlands, nature reserves, inhabitants, Japan

## I Introduction

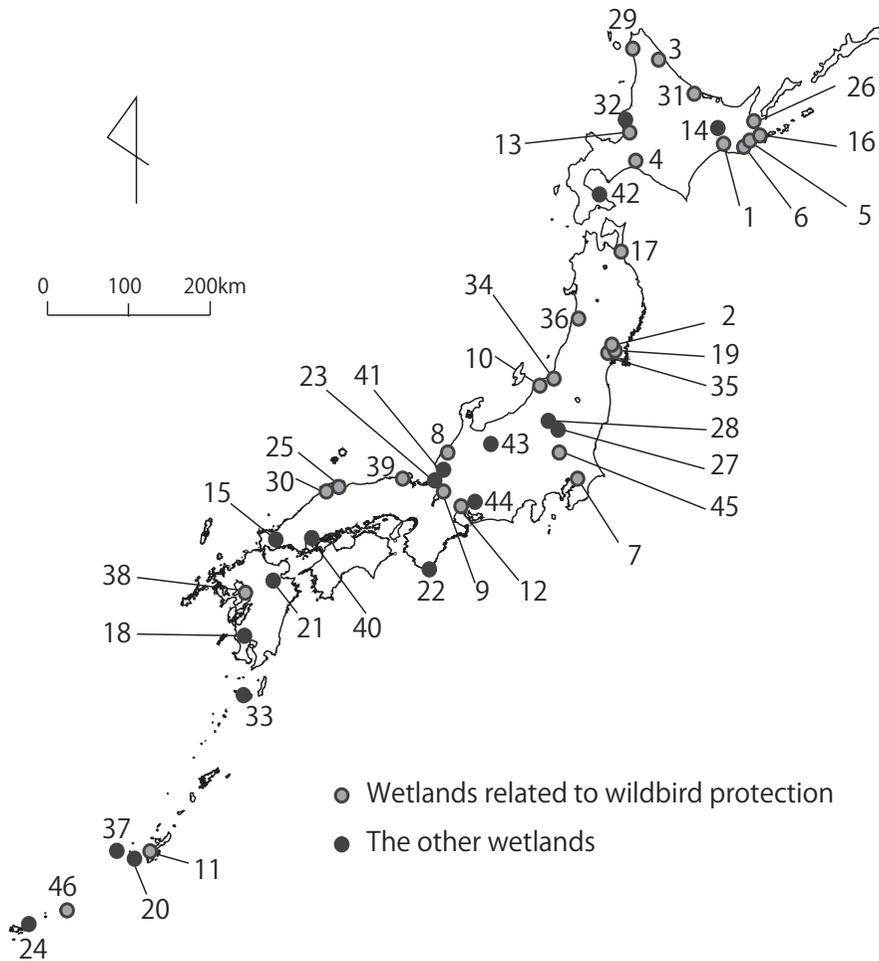
When the World Heritage Site of Miyajima in Hiroshima Prefecture was registered under the Ramsar Convention (Figure 1, Table 1), local opinion was divided into two main camps. Local conservationists saw the registration as adding further support to efforts to protect a dragonfly habitat, while a coalition of civic boosters saw the registration as bestowing further world recognition that could be used to promote tourism. These two camps, and their respective framing of local wetland environments, existed before Ramsar registration, but it was the global discourse and practice of wetland conservation due to the Ramsar Convention that brought these previously muted conversations to the fore of public debate. In that process, local debate over the meaning of conservation and registration was reshaped by the extra-local conservation logic promoted by the Ramsar Convention itself. Yet that logic is far from singular. As suggested by its official title — “Convention on Wetlands of International Importance especially as Waterfowl Habitat” — the Ramsar Convention was initially established to conserve the habitat of waterfowl migrating across international borders. However, the objectives of wetland conservation have been gradually and significantly expanded to include the conservation of biodiversity in accordance with notions of sustainable development. The layering of this global

sustainable development agenda onto the two aforementioned local and divergent views of registration creates a three-way contest over what registration will mean in practice at Ramsar wetlands such as Miyajima. Most importantly here is the gap between the ideals stipulated in the Ramsar Convention and the way in which local actors and coalitions interpret and redefine them in practice. By attending to this gap, we can identify the interplay between the local and the global in conservation discourse and practice, and the process whereby heterogeneous views of local nature are reshaped by global conservation standards.

This paper discusses the transformation of local conservation sites by global ideas through an examination of the notion of wise use in relation to Ramsar wetlands in Japan. Wetlands have multiple uses, including agriculture, fishing, water, tourism, and recreation; they are also often sites for more transformative forms of utilization, such as the development of industry or housing. The transformation of such spaces with potentially multiple uses into nature reserves is a process that entails placing restrictions on the utilization of wetlands by local inhabitants. However, the notion of wise use demands that access to wetlands is not completely limited but rather, that ecologically aware utilization should be promoted. Yet the promotion of wetland utilization makes nature conservation complicated and ambiguous: what kind of utilization complements nature conservation? In whose interests are conservation and utilization pursued? Wetlands are sites not only of multiple uses but also framed by multiple views. How does introducing the abstract concept of wise use shape the relationship between local inhabitants and wetlands? The debate on nature reserves should begin with a comprehensive discussion of utilization, because the promotion of utilization at such sites is an area of opposing views and practices whereby these sites are imbued with multiple meanings.

While Ramsar wetlands share similarities with other nature reserve systems, registration under the Ramsar Convention has a number of features that make its particular negotiation of global-local interactions different. First, since the Ramsar Convention has incorporated the notion of wise use and utilization by local inhabitants into the conservation discourse from its inception, an analysis of its implementation makes it possible to examine the relationship between residents and nature reserves from the perspective of utilization. The establishment of a nature reserve is a process of restricting the use of a certain space that forces residents to reconsider their relationship with that site: when residents are urged to use a wetland wisely, they will have to debate what that means for the wetlands and themselves. Second, in Japan, the number of sites registered under the Ramsar Convention has steadily increased, but the expectations for regional revitalization that accompany that registration are far less common. This raises an important question: why do local communities tend to be uninterested in the Ramsar registration, even when, in contrast to other conservation systems, it includes stipulations for promoting wise use? This paradox makes Ramsar wetlands in Japan important in considering the meaning of nature reserves for local communities. The purpose of this paper is to identify how the international standards of the Ramsar Convention are accepted locally. More specifically, by looking at the deployment of wise use at Ramsar wetlands throughout Japan, it examines how designated wetlands were socially and physically reshaped. It thus contributes to the ongoing debate on how local communities incorporate "official" global standards into the process of recreating local environments.

The paper proceeds as follows. Section II demonstrates that Ramsar wetlands vary in meaning and function across different social contexts, and also reviews previous literature on the relationship between local communities and their environments, focusing in particular on



**Figure 1.** Ramsar wetlands in Japan (2014)

Source: Asano et al. (2013) etc.

social-scientific studies of Ramsar wetlands in Japan. Section III outlines the utilization of Ramsar wetlands in Japan. Section IV describes a number of examples of such sites that have been evaluated as demonstrating “best practice” for wise use, from the perspective of four categories: primary industry, tourism and recreation, educational use, and marketing. Based on these discussions, Section V considers the interactions between international standards and local interpretations, focusing in particular on the role that the extra-local framing of nature plays in reshaping the relationship between local communities and their environments.

## II The Ramsar Convention and the Conservation of Wetlands in Japan

This section outlines previous research on Ramsar wetlands in Japan (Figure 1, Table 1). We begin with a basic question: what kind of conservation system does the Ramsar Convention promote? The Ramsar Convention is a treaty aimed at wetland conservation that came into effect in 1975, the three fundamental purposes of which are conservation, wise use, and Communication, Education, Participation and Awareness (CEPA). After the 7th Conference of the Parties (COP7)

**Table 1.** Ramsar wetlands in Japan (2014)

No.	Ramsar site	Dominant wetland type	Designation year	Ramsar criteria
1	Kushiro-shitsugen	Freshwater marshes	1980	1, 2, 3
2	Izu-numa and Uchi-numa	Freshwater lakes	1985	2, 3
3	Kutcharo-ko	Freshwater lakes	1989	2, 3, 6
4	Utonai-ko	Freshwater lakes	1991	2, 5
5	Kiritappu-shitsugen	Saline or brackish marshes	1993	1, 3
6	Akkeshi-ko and Bekambeushi-shitsugen	Saline lagoons; Brackish marshes; Estuarine waters	1993	1, 2, 4, 6
7	Yatsu-higata	Intertidal flats	1993	3
8	Katano-kamoike	Freshwater pools	1993	3
9	Biwa-ko	Freshwater lakes	1993	1, 2, 3, 5, 7
10	Sakata	Freshwater lakes	1996	3, 5, 6
11	Manko	Intertidal flats	1999	1, 2, 6
12	Fujimae-Higata	Intertidal flats; Shallow marine waters	2002	2, 4, 5
13	Miyajima-numa	Freshwater lakes	2002	2, 4, 5, 6
14	Akan-ko	Freshwater lakes	2005	1
15	Akiyoshidai Groundwater System	Karst and other subterranean hydrological systems	2005	1
16	Furen-ko and Shunkuni-tai	Brackish lakes; Shores; Intertidal marshes	2005	1, 2, 3, 5, 6
17	Hotokenuma	Non-forested peatlands	2005	2
18	Imuta-ike	Freshwater lakes; Non-forested peatlands	2005	2
19	Kabukuri-numa and the surrounding rice paddies	Irrigated land	2005	5, 6
20	Kerama-shoto Coral Reef	Coral reefs	2005	1, 3
21	Kuju Bogatsuru and Tadewara-shitsugen	Non-forested peatlands	2005	1
22	Kushimoto Coral Communities	Coral reefs	2005	1
23	Mikata-goko	Brackish lakes; Freshwater lakes	2005	7, 8
24	Nagura Ampuru	Intertidal flats	2005	1, 3, 7
25	nakaumi	Brackish lakes	2005	5, 6
26	Notsuke-hanto and Notsuke-wan	Shallow marine waters; Marine subtidal aquatic beds; Sand or shingle shores	2005	1, 2, 5, 6
27	Oku-Nikko-shitsugen	Non-forested peatlands; Freshwater lakes	2005	1
28	Oze	Non-forested peatlands	2005	1
29	Sarobetsu-genya	Non-forested peatlands; Freshwater lakes	2005	1, 3, 6
30	Shinji-ko	Brackish lakes	2005	5, 6, 7, 8
31	Tofutsu-ko	Brackish lakes	2005	1, 2, 3, 5, 6
32	Uryunuma-shitsugen	Non-forested peatlands	2005	3
33	Yakushima Nagata-hama	Sand or shingle shores	2005	4
34	Hyo-ko	Water storage areas	2008	2, 6
35	Kejo-numa	Water storage areas	2008	2, 6
36	Oyama Kami-ike and Shimo-ike	Freshwater lakes	2008	2, 5, 6
37	Streams in Kume-jima	Streams	2008	2
38	Arao-higata	Intertidal flats	2012	1, 2, 6
39	Lower Maruyama River and the surrounding rice paddies	Rivers	2012	2, 8
40	Miyajima	Intertidal marshes	2012	2, 9
41	Nakaikemi-shicchi	Non-forested peatlands	2012	1, 2, 3
42	Onuma	Freshwater lakes	2012	1
43	Tateyama Midagahara and Dainichidaira	Alpine wetlands	2012	1
44	Tokai Hilly Land Spring-fed Mires	Freshwater marshes	2012	1, 3
45	Watarase-yusuichi	Intermittent freshwater pool on inorganic soil	2012	1
46	Yonahawan	Shallow marine waters	2012	1, 2, 6

Source: Website of the Ramsar Convention Secretariat (last accessed October 16, 2014)

Note: The site number in the table is consistent with the numbers in the figure 1.

The number of Ramsar criteria is consistent with the numbers in the table 2.

in 1999, the number and objectives of wetland registration were greatly extended: in Japan, registrations prior to COP7 were limited to wild bird sanctuaries; following COP7, however, the habitats of insects and fish, as well as groundwater and coral reef sites, began to be registered. The number of registrations also greatly increased: between 1980 and 1999, only nine sites were registered; from 2000 to 2012, however, that number increased to 46. At COP10, held in South Korea in 2008, it was resolved that so-called “secondary nature,” such as paddy fields, should be conserved from the viewpoint of biodiversity. The Ramsar Convention broadly defines wetlands as “areas of marsh, fen, peat land or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six meters” (Article 1.1). The debate about conservation and use of Ramsar wetlands is mainly conducted at the Ramsar Convention Conference of the Parties, and information related to the subsequent decision-making, including the resolutions of each meeting, are posted on the website of the Ramsar Convention Secretariat and made public through research reports.<sup>2</sup>

Japan joined the Ramsar Convention in 1980 and Kushiro-shitsugen, the country’s first Ramsar wetland, was registered in that year. While the number of sites slowly increased at first, the number of registered wetlands began to rapidly increase after 1993, and even more so after 2005. As of March 2014, 46 sites encompassing an area of 137,968 ha have been registered, from Hokkaido in the north to Okinawa in the south, with most sites located in Tohoku (the northern part of Honshu), Okinawa, and Hokkaido. In Hokkaido, Tohoku, and areas along the Sea of Japan, the habitat and wintering sites of wild birds are the primary target of conservation, while in the other areas, there are examples of wetlands registered as a result of other standards and objectives (for example, to conserve the habitat of rare fish or insects).

Registration standards of the Ramsar Convention are based on the rules of each particular country. In Japan, Ramsar registration is based on the following criteria: 1) the site must be an internationally important wetland, 2) the wetland must be protected by domestic laws, and 3) local approval must be acquired.<sup>3</sup> With regard to the first criteria, while it is possible to see the Ramsar Convention as merely a convention for preserving the habitat of wild birds, the objective is not just limited to birds but takes into consideration other objectives, such as fish, insects, and plants, as well (Table 2). In Japan, a list of wetlands targeted for preservation was drawn up and 172 sites were subsequently selected for potential Ramsar registration in 2010.<sup>4</sup> In relation to the second criteria, the main domestic laws that apply to Ramsar wetlands in Japan are the “Natural Park Act” and the “Wildlife Protection and Proper Hunting Act,” although the “Act on Conservation of Endangered Species of Wild Fauna and Flora” and the “River Act” may also be applicable. As to the third criteria, it may be necessary to create a new nature conservation area under domestic law before it can receive Ramsar registration. In this case, an administrative officer may argue that “since nothing changes even after the Ramsar registration, there is nothing to worry about,” in order to persuade local residents to agree to Ramsar registration.<sup>5</sup> Political considerations also play a considerable role in the process of creating nature reserves: for example, Shimane and Tottori Prefectures opted not to pursue Ramsar registration while advancing major land reclamation projects at Lake Nakaumi and Shinji-ko, respectively; however, when these projects were cancelled, the prefectural governments quickly reversed their decisions and began to actively promote and pursue registration for both sites. Thus, we can see that wetlands where development is planned are not likely sites for Ramsar registration; indeed, the natural lakeshores of Lake Nakaumi and Shinji-ko were excluded from

**Table 2.** Criteria for the designation of wetlands of international importance

	Group		Criterion
A	Sites containing representative, rare or unique wetland types	1	It contains a representative, rare or unique example of a natural or near-natural wetland type found within the appropriate biogeographic region.
B	Sites of international importance for conserving biodiversity	2	It supports vulnerable, endangered, or critically endangered species or threatened ecological communities.
		3	It supports populations of plant and/or animal species important for maintaining the biological diversity.
		4	It supports plant and/or animal species at a critical stage in their life cycles, or provides refuge during adverse conditions.
		5	It regularly supports 20,000 or more waterbirds.
		6	It regularly supports 1% of the individuals in a population of one species or subspecies of waterbird.
		7	It supports a significant proportion of indigenous fish subspecies, species or families, life-history stage, species interactions and/or populations that are representative of wetland benefits and/or values and thereby contributes to global biological diversity.
		8	It is an important source of food for fishes, spawning ground, nursery and/or migration path on which fish stocks depend.
		9	It regularly supports 1% of the individuals in a population of one species or subspecies of wetland-dependent non-avian animal species.

Source: Ramsar Convention Secretariat 2011, p. 52.

the new wildlife protection areas, demonstrating that the scale and shape of nature reserves may be modified according to what areas are earmarked for future development.

Although there are few previous studies on Ramsar wetlands in Japan, these have approached the topic from heterogeneous perspectives. Generally speaking, these studies can be divided into two categories: reports that introduce each Ramsar wetland and studies that focus on the relationship between wetlands and local inhabitants. In the first category — reports about specific Ramsar wetlands — several periodicals have published special issues briefly introducing various aspects of each Ramsar wetland and describing any problems currently confronting conservation in the area.<sup>6</sup> As new applications for registration are made annually at each Conference of the Parties by Japanese delegations,<sup>7</sup> it is possible for Japanese periodicals to publish a new special issue on Ramsar wetlands in Japan every three years. In the second category — studies focusing on the relationship between wetlands and local inhabitants — several recent studies discuss Ramsar wetlands in relation to common-pool resources and environmental governance theory. Such examples include the following: Sato and Kiminami (2008) conducted a questionnaire survey to determine residents’ awareness of Lake Sakata; Suganuma and Umemoto (2009) compared Kabukuri-numa with Katano-kamoike in order to analyze the role of actors in the conservation and use of the wetlands; Shikida (2010) examined the history of the relationship between Katano-kamoike and local inhabitants, and explained the possibility of conservation through collaboration with “outsiders.” There are also Ramsar wetland studies based on the Living Environment Principle (*Seikatsu Kankyo Shugi* in Japanese environmental sociology), which suggests that nature should be rethought from the viewpoint of nearby residents: Miyuchi (2009) examined the meaning of wetlands for residents through a case study of Lake Miyajima-numa in Hokkaido; through a case study of Lake Izu-numa and Uchi-numa, Saito (2011) argued that residents’ indifference to the marshes and the lack of administration was the result of a system of wetland control not informed by local life and culture; Takenaka (2008) showed that farmers around Kabukuri-numa, who were initially opposed to nature conservation groups, became practitioners of environmentally aware

agriculture, not through any abstract logic of “nature” conservation, but through recognizing the importance of the marsh to their own life. What all of these studies suggest is that the conservation and sustainable use of wetlands is based on understanding the views of various stakeholders. Several additional studies of Ramsar wetlands can be found: Kuriyama (1998) estimated the value of Kushiro-shitsugen as a sightseeing resource; Yabunami and Kanda (2003) analyzed the CEPA program also in Kushiro-shitsugen; Chao-Ge-Ji-Le-Tu and Asano (2011) reported on the friction between sightseeing and nature conservation activities on Yakushima Nagata-hama beach in the Yaku-islands; Tanaka (2000) discussed the Ramsar wetlands of Japan from a legal perspective.

### III The Concept of Wise Use and the Actual Condition of Wetland Utilization in Japan

#### International Definition and National Explanation

Ecologically friendly primary industries, such as traditional fishing and environmentally aware agriculture, are practices often described under the banner of wise use. More recently, however, wetland tourism has also attracted attention from the perspective of ecotourism.<sup>8</sup> The initial definition of wise use under the Ramsar Convention was “[W]ise use of wetlands is their sustainable utilization for benefit of mankind in a way compatible with the maintenance of the natural properties of the ecosystem” (at COP3 in 1987). This definition was then changed, at COP10 in 2008, to align with the Millennium Development Goals of the United Nations, and now reads, “[W]ise use of wetlands is the maintenance of their ecological character, achieved through the implementation of ecosystem approaches, within the context of sustainable development” (Ramsar Convention Secretariat 2011, 45-46). Both of these definitions mention wise use but stop short of defining or further concretizing this term; similarly, the formal handbooks published by the secretariat contain no concrete definition, only examples of best practice. Here, wise use is explained only by confirming that existing environmentally aware utilization practices are wise use in an *ex post facto* manner. Accordingly, wise use of wetlands cannot be assessed against concrete standards, and it is imperative to evaluate how this term is deployed.

The Ministry of Environment in Japan explains wise use from two broad perspective, in a pamphlet concerning the Ramsar Convention, by citing some existing cases.<sup>9</sup> The first approach focuses on the development of special products or tourism areas that use the cultural capital of the Ramsar Convention as a branding strategy; such examples of wise use noted in the pamphlet include: fish and shellfish under independent resource management by fishermen; organic rice production to promote wild-bird protection; mountain recreation management based on partnerships between people and government; and various tour guide activities at wetlands. The other approach to wise use outlined in the pamphlet is related to livelihoods, in which people’s wisdom, skill, and spirit are intertwined; such examples include: local pride in the scenery; grassland burning by a local community; traditional fishing and hunting; local industry using reeds as raw materials; and traditional forms of local entertainment. These examples of wise use can be categorized according to the purpose of utilization, including primary industry, tourism and recreation, education, and marketing. Ando et al. (2009) suggest that traditional primary industries and lifestyles largely fit within the concept of wise use, but have not been viewed as such by local residents since these practices are simply everyday activities for them.

### The Utilization of Ramsar Wetlands in Japan

Asano et al. (2012a) examined the government agencies responsible for 37 sites registered before 2011: Figure 2 indicates the ways in which wetlands were used before and after registration (Asano et al. 2012a, 84–85). Primary industry use, such as fishing or hunting, decreased, while more than half of the wetland sites have been used for tourism, recreation, and environmental education and study. Yet registration did not change the tourism use of wetlands; more than 80% of all wetlands sites have been used for tourism, with bird watching being the most popular tourist activity (Asano et al. 2012a: 85). Concerned with tourism use, another survey by Asano et al. (2013) indicates that visitors to a Ramsar site hope to, first, enjoy the beautiful natural scenery and, second, experience feelings of recreation and recovery (Figure 3; Asano et al. 2013, 60). Outdoor recreational activities, including camping and barbecuing, were not activities that respondents associated with Ramsar wetlands; moreover, many respondents were simply not interested in visiting a Ramsar site.

After registration, the prevalence of environmental education and scientific research tends to increase at wetland sites. In Japan, CEPA is emphasized as one key objective of the Ramsar Convention, and educational use of Ramsar wetlands is implemented more frequently than economic use, with CEPA activities at each Ramsar site consisting mainly of exchange programs with other sites. In addition, the distribution of leaflets, holding of educational events, management of visitor centers, and dissemination of online information is implemented at many sites (Asano et al. 2012a, 86).

The aims and objectives of each Ramsar wetland in Japan are illustrated in Figure 4. Although

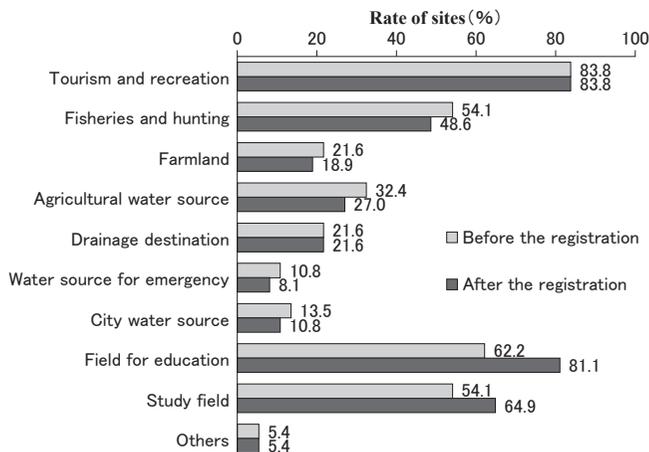


Figure 2. Change of wetlands use before and after the registration (37 sites)

Source: Asano et al. 2012a, 85.

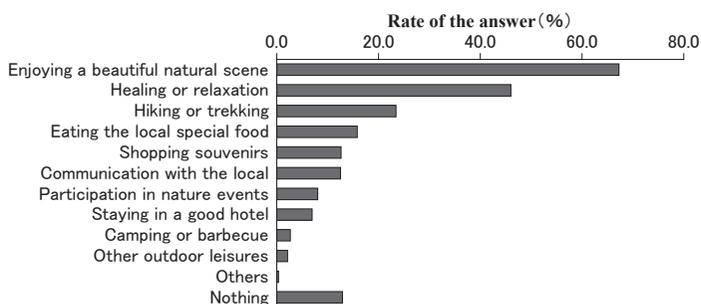
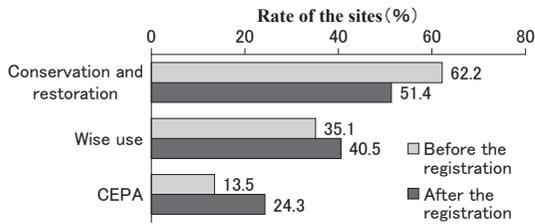


Figure 3. Activity that the respondents want to do at Ramsar wetlands (N = 1,093, Multiple answers)

Source: Asano et al. 2013, 60.



**Figure 4.** The expectation for the Ramsar registration before and after the registration (37 sites)

Source: Asano et al. 2012a, 87.

wetland management or are not currently supporting cooperation with citizens, companies, or schools are also around 40%, respectively (Asano et al. 2012a, 86-87). Even when registered as a Ramsar wetland, 40% of all sites do not cooperate with residents, citizen groups, or local organizations as a means of managing wetlands. Generally, while awareness of wetland conservation is high, awareness of use is not. At the local public office, there are only one or two officials in charge of Ramsar wetlands, but managing local nature conservation efforts is often in addition to various other posts and duties. This reveals that officials managing tourism, agriculture, or fisheries are seldom concerned with Ramsar wetlands and that, in many cases, wise use tends to mean only educational use.

#### IV Wise Use of Ramsar Wetlands in Japan: Examples of Best Practice

This section introduces wetlands described as examples of “best practice” in wise use for the four categories: primary industry, tourism and recreation, educational use, and marketing. As mentioned, the definition of wise use is abstract and only recognized on a case-by-case basis. In many cases, external specialists identify practices at certain sites as wise use and then disseminate them as best practice, a process which forms the concept of wise use. The cases of wise use outlined below are examples of best practice often mentioned in Japan. While it is possible to question whether these cases are indeed best practice, rather, the point here is to show that the criteria for evaluating wise use are largely formed through this process of selecting and disseminating best practice.

##### Primary Industries

The most fundamental use of Ramsar wetlands is fishing and agriculture. Historically, natural resource use in Japan has been communally regulated, and even today in sustainable fisheries, fishermen restrict catches, season, equipment, and methods. Moreover, environmentally aware agriculture that reduces utilization of agricultural chemicals or chemical fertilizers has increased. Thus, primary industry has already been practicing wise use of wetlands: for example, the clam fishery, which is under the direct control of fishermen at Lake Shinji-ko, and registered under the Ramsar Convention in 2005, is considered a best practice example of wise use. Here, due to reduced catches resulting from environmental degradation, fishermen began to take environmental management into their own hands by stipulating various forms of regulation, and the fishermen’s union founded a research institute in order to support research and conservation activities. In addition to the fisheries, organic rice farming around this lake,

many sites aimed at conservation and restoration of wetlands before registration, sites pursuing wise use or CEPA greatly increased after registration. The rate of sites where the diversity or frequency of wetland use increased after registration is approximately 40% (Asano et al. 2012a, 84); on the other hand, the percentage of sites without any conspicuous change is also around 40%, while the percentage of sites that do not have any committees concerned with

known as “fuyumizu tambo” (or paddy fields filled with water even during winter<sup>11</sup>), is also a best practice example of wise use. This rice is produced and sold under the brand name of “Kohakuchou-mai” (Tundra swan rice).

Such agricultural practices aimed at symbiosis with the wildlife are currently very popular and have been spreading across the country. For instance, farming without agricultural chemicals, or with lower application levels, is promoted in the Toyooka area, where the Lower Maruyama River and its surrounding rice paddies were registered under the Ramsar Convention in 2012. This is tightly connected to a project to reintroduce the Oriental White Stork to the area: for five years following the release of the birds in 2005, farmland where organic or low chemical-input agriculture was practiced expanded from virtually zero to 320 ha (Mitsutake and Enomoto 2013, 10), and the number of households implementing such farming practices increased to 189.

Traditional hunting may be evaluated as both an intangible cultural asset and wise use, as is the case with the “Sakaami-ryo” hunting practices at Katano-kamoike in Ishikawa Prefecture. Using this method, a hunter throws a net in order to catch flying ducks, but residents and wild bird protection organizations disagreed over whether to preserve this traditional form of hunting. However, after Ramsar registration, it was redefined as wise use and has provided an opportunity for various actors to form a consensus on wise use (Suga 2006, 78–79).

Reed screen production was also once a thriving industry and an important activity at many Ramsar wetlands. In recent years, though, these industries have declined as various river improvement projects have caused the disappearance of reed fields, while demand for reed screens has dropped. However the ecological importance of reed fields is widely recognized and the restoration of reed fields and promotion of the reed screen industry have been attempted. The best-known sites for such activities are: Lake Biwa-ko; near Watarase-yusuichi, a flood control basin registered in 2012, where reed screens are an important local industry; and at Kabukuri-numa, where reed screens are not produced but projects to use reeds as a biomass fuel have been initiated (Asano et al. 2012b), as it is necessary to reinstate the cyclical use of reed in order to maintain the wetland environment.

It is imperative to remember that all of the above examples of wise use by primary industry were implemented before Ramsar registration. Thus, they should not be cited as examples of registration bringing dramatic changes to wetlands.

### **Tourism and Recreation**

Tourism and recreation at Ramsar wetlands is not prevalent in Japan. Although many tourists continue to visit sites that were renowned for sightseeing even before registration, others are generally unknown and unvisited (Asano et al. 2013, 57–58). The main tourist activities at wetlands are bird watching, walking, and enjoying the scenery — other activities are not as popular (Asano et al. 2012a, 85). Although volunteers or visitor center staff conduct many nature-watching events, and some ecotour businesses are developed at some sites, this is not a common economic activity. For example, in Kushiro-shitsugen, there are visitor centers at various locations from where visitors can view the wetland scenery, walk along nature trails, and enjoy bird watching, photography, fishing, canoeing, or horseback riding, accompanied by a professional guide. Tourists number about 500,000 people per year<sup>12</sup>, many of whom started to visit after registration. Another example is the guided tours to observe egg laying by sea turtles at Yakushima Nagata-hama beach, a Ramsar site located on Yaku-island, which is itself a World

Heritage Site; Yakushima Nagata-hama beach has developed into an ecotourism site along with the island's well-developed mountain guide system.

As previously mentioned, the site of Toyooka and the Lower Maruyama River, and the surrounding rice paddies, is known for the Oriental White Stork Reintroduction Project; indeed, the existence of the white stork was an important asset in pursuing and acquiring Ramsar registration. The releasing of white storks attracted the attention of many people and the number of tourists rapidly increased: over 300,000 visitors come to catch a glimpse of the bird, annually (Kikuchi 2011, 87). Furthermore, one significant spillover from the project is the development of white stork-themed souvenirs and products that are purchased by many visitors: the annual expenditure by tourists is said to total 3 billion yen per year (Oonuma 2009). Generally speaking, however, it is rare that a flagship bird species can lead to such dramatic increases in tourism. In fact, there is debate over whether exploiting the appeal of birds to develop mass tourism is good for environmental conservation, and the attitude of local people to tourism at Kabukuri-numa does challenge this idea. The local people prefer that only tourists who are well informed about the needs of wild bird protection visit the swamp and discourage the erection of road signs to direct visitors to it.<sup>13</sup> Consequently, unless visitors ask the public office or environmental NPOs, they will be unable to reach the site, keeping visitor numbers down, although bird lovers visit repeatedly. For instance, when tourism to Tohoku declined sharply following the Great East Japan Earthquake, the number of bird watchers visiting this swamp actually increased, due to their desire to support conservation. While residents generally favor limiting access to and use of the site, they are attempting to proactively implement green tourism connected with "*yutakana shizen*," secondary nature rich in biodiversity.

Such trials to promote tourism are also being implemented at Yaku-island and its Ramsar site of Yakushima Nagata-hama beach, where tourist numbers increased rapidly after registration and overuse became an acute problem. Particularly problematic is the heavy concentration of tourists visiting Jomon-sugi, a grove of ancient cryptomeria, but efforts to attract tourists more evenly across the island have not proved effective. Although Yakushima Nagata-hama has been identified as a potential site for redistributing visitors, since this beach is one of the most important sites for sea turtle nesting in Japan, the presence of many visitors could have a significant negative impact. Thus, in the villages surrounding Yakushima Nagata-hama, local guides have attempted to develop ecotours similar to those of other villages on the island in order to create alternative tourist attractions to the overly popular sea turtles.<sup>14</sup>

### **Educational Use**

In Japan, educational use of wetlands has been aggressively pursued after Ramsar registration; as previously mentioned, educational use is often portrayed as the most successful and popular of the three aims of the Ramsar Convention. At sites where educational activities have been pursued for many years, people who were enrolled in educational programs as children have grown up to become leaders of the present-day educational programs. Around Kabukuri-numa, education about the swamp is included in the curriculum of the local elementary school, and all students study and visit the swamp: the person in charge of the NPO and responsible for its incorporation into the local educational curriculum stated that, "[F]ormerly there were many residents who did not know where the swamp was. But now, all children in this area have received environmental education about the swamp. When children grow up and remain here, they will become leaders of this area. Then the number of residents against preserving the

swamp and living together with wild birds will decrease.<sup>15</sup>”

It is important to note that educational nature tours are not profit-oriented ecotours, and in many cases, educational tours are performed as volunteer activities or official business. Although these activities can attract participants, the ripple effect on the local economy is negligible. Moreover, if volunteer-led tours increase, then it will be challenging to develop an ecotour business: for example, on Yaku-island, where many ecotour guides are operating, free educational tours by volunteers are not implemented. At many Ramsar wetlands in Japan, CEPA is aimed at social education and not improving the local economy.

In relation to the educational and tourist use of wetlands, visitor centers are highly important: CEPA activities are common at sites with a visitor center and uncommon at those without (Asano et al. 2012a, 94–95). Existence of a visitor center affects not only CEPA but also tourism and environmental preservation enterprises, correlating with heterogeneous wetland use. At some sites, such as Kushiro-shitsugen or Lake Izu-numa and Uchi-numa, two or more visitor centers were constructed: at the latter, since a visitor center was constructed by all three local governments before their eventual merger, each institution has been delegated different responsibilities post merger, with one providing information about birds, one about fish, and one about insects of the wetland. Many visitor centers are built and managed by local government, although some might be built as a result of civic movements for nature conservation, such as the Tsurui and Ito Japanese Crane Sanctuary in Kushiro-shitsugen (Kikuchi 2013) or the Yonago Waterfowl Park by Lake Naka-umi (Asano 2008; Koide 2013), while others may be connected to the Corporate Social Responsibility (CSR) practices of a company, such as the Gobiusu Aquarium at Lake Shinji-ko (Koide 2013). Visitor centers may also be established by local residents, as is the case in Tai village in Toyooka City (Kikuchi 2013), where residents erected an observation shelter with funds received through the support of white stork lovers, researchers, and university students.

### **Marketing**

As mentioned above, selling agricultural products aimed at contributing to wild bird protection, using the name of the Ramsar Convention in tourism campaigns, or initiating environmental education at the time of the registration are effective methods of employing the Ramsar Convention brand. It is possible to use the Ramsar Convention brand not only for an individual enterprise but also as a symbol for arranging various enterprises systematically.

In order to use Ramsar registration for regional improvement, those responsible for a site may refer to registration as “an international recognition bestowed on a precious wetland” as a local branding strategy. In Japan, World Heritage or Global Geopark registration does create tourism fever among local residents; however, in the case of the Ramsar Convention, this does not necessarily occur, even though it is a similar system aimed at conserving mankind’s inheritance and promoting sustainable utilization of it. This may be because the Ramsar Convention is seen as a system promoting only protection (Asano et al. 2013). However, it is possible to use the global guarantee provided by Ramsar registration for regional improvement like any other system, and it is not limited to tourism campaigns.

Although there are few examples, the number of areas using Ramsar registration in local branding has gradually increased. For example, Toyooka City is trying to achieve systematic regional improvement by using the white stork as a symbol: environmentally friendly agricultural products (e. g., rice, sake, souvenirs) are sold under the white stork brand name, and the

city has also tried to develop white stork tourism and attract environmental businesses (Toyooka City 2007). Similar efforts have been made not only in Toyooka but also in some areas recently registered or aiming for future registration: for example, Oyama City, at Watarase-Yusuichi, is trying to become a protection site for the white stork in the Kanto region, and aiming for regional improvement like Toyooka City. There are more positive cases to be found in South Korea. For instance, Suncheon City in Korea declared itself the South Korean “eco-capital” and invited the International Garden Exposition, following Ramsar registration. This forms part of the effort toward a new urban development, which sets the expo venue as the border of the urbanized area in order to control its sprawl and reduce the negative influence on the Ramsar wetland (Asano 2013). Also, on Jeju Island in Korea, authorization of the Ramsar village was performed prior to world registration in an attempt to directly connect community improvement with the Ramsar Convention.<sup>16</sup> Can we not declare that the Ramsar wetlands in Japan are used in the same manner?

## V Conclusions

Wise use is one of the aims of the Ramsar Convention, but the concept is abstract, often explained through examples of best practice rather than concrete definition. Consequently, when wetland stakeholders accept the Ramsar Convention, they identify best practice according to their own perceptions of wise use. This paper has described the wise use of Ramsar wetlands in Japan, which are primarily used as sites for educational activities. Generally, utilization by primary industries is evaluated positively, with practices that existed prior to registration, such as environmentally aware agriculture or sustainable fisheries, being recognized as examples of wise use following registration. Tourism is also recognized as wise use and ecotourism is increasing. Although the Ramsar Convention provides sites with ideas for wise use, actual implementation is not limited by these international standards. Rather, it is when residents or wetland stakeholders identify certain forms of utilization as wise use that the concept takes shape.

In fact, the global standards of the Ramsar Convention may not conform to the realities of the local area; local residents are rarely conscious of or motivated by the categories of the Ramsar Convention shown in Table 2. Rather, residents view wetlands from the perspective not of rangers but of users, and so there is a big difference between the attitudes of local people toward registration. For example, at some wetlands, nothing has been done since registration but at others, Ramsar-related branding has been tried. In such instances, however, the ecological ideals of the Ramsar Convention are seldom respected: the idea that wetland stakeholders can obtain residents’ approval of and cooperation in nature conservation by returning benefits to local communities is not pursued. In Japan, wetland stakeholders do not pursue novel forms of utilization to realize new benefits but, rather, perceive the Ramsar Convention as a system for promoting conservation only. Consequently, Ramsar registration is only rarely associated with tourism or economic activities, and far more often with environmental education. As stakeholders recognize that the so-called wise use of wetlands is in many cases synonymous with existing or previous uses of the wetland, they do not actively pursue new strategies for wise use after registration. For example, environmentally aware agriculture developed before registration in many cases — “white stork rice” in Toyooka being a case in point — and Ramsar registration has not inspired novel agricultural techniques and

implementation; instead, the connection between wise use and the Ramsar Convention is only made after registration. In Japan, some domestic laws corresponding to the Ramsar Convention do not assume utilization of the target site, so even when registered as a Ramsar wetland, nothing may happen in many cases. This creates indifference among residents and other stakeholders, although it is thought that Ramsar registration has played a role in promoting consensus among residents toward preservation without stirring up contentious debate.

The tendency to connect Ramsar registration to regional improvement has increased in recent years, but as recognition of the Ramsar name is not high, the social impact of achieving registration is comparatively small. In this sense, Ramsar registration greatly differs from World Heritage registration, which often results in a sightseeing boom and overuse. In the case of Ramsar registration, though, tourist booms are unlikely; however, there is an increasing potential to tie registration to tourism promotion or community development. When local residents do pursue such strategies, there is the potential to deviate from the original intentions of the Ramsar Convention.

Although the concept of wise use has been determined from the top down, it has not been involved in the introduction of novel new practices at local sites. In order to tie registration to regional improvement, local people must take the initiative in devising new strategies, which raises the issue of local motivation toward the kind of relationship to pursue with nature reserves. In some cases, residents will pursue a relationship not well aligned with the Ramsar Convention ideals. An extra-local standard such as the Ramsar Convention is interpreted according to residents’ logic, but only if they wish to use that external stimulus; if they are not interested, registration will be formally accepted and subsequently ignored. Yet the external concept of the Ramsar Convention is not meaningless: the abstract idea of the convention is disseminated through environmental education that shapes how residents, especially future generations, come to understand the relationship between themselves and the wetland. Thus, it is a catalyst for constructing new relationships between residents and nature at each site.

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## Notes

1. The wise use movement in the United States (e. g., McCarthy 2010) and the wise use concept used by the Ramsar Convention are not directly related. Refer to the website of the Ramsar Convention Secretariat. [http://www.ramsar.org/cda/en/ramsar-documents-resol-additonal-guidance-for/main/ramsar/1-31-107^20915\\_4000\\_0\\_](http://www.ramsar.org/cda/en/ramsar-documents-resol-additonal-guidance-for/main/ramsar/1-31-107^20915_4000_0_) (last accessed June 9, 2014).
2. Refer to the website of the Ramsar Convention Secretariat. [http://www.ramsar.org/cda/en/ramsar-home/main/ramsar/1\\_4000\\_0\\_](http://www.ramsar.org/cda/en/ramsar-home/main/ramsar/1_4000_0_) (last accessed November 17, 2012).
3. Refer to the website of the Ministry of Environment. <http://www.env.go.jp/nature/ramsar/conv/2-1.html> (last accessed April 7, 2014).
4. Refer to the website of the Ministry of Environment. <http://www.env.go.jp/press/press.php?serial=12982> (last accessed August 15, 2012).
5. Refer to the website of the Biwa-ko Ramsar study group. Description by Ando M.: wise use in Lake Biwa. <http://www.biwa.ne.jp/~nio/ramsar/sec3wise.htm> (last accessed August 15, 2012).
6. These articles include the following: “The Ramsar wetlands” in *Watashi Tachi no Shizen (Our Nature)* (2003–04); “The Ramsar Convention and present wetlands: A report from Hokkaido, the wetland kingdom of Japan” in *Molly* (11, 2004); “The natural heritage and the Ramsar wetlands of Japan” in *Chiri (Geography)* (Vol. 51 No. 4,

- 2006); “The map of the Ramsar wetlands” in *Chizujoho (Map Information)* (Vol. 29 No. 2, 2009); and “The Ramsar Convention and Lake Biwa” in *Chiri (Geography)* (Vol. 56 No. 7, 2010).
7. The three-year timing of applications seems to be unique to Japan, and other countries do not necessarily adhere to the year in which the COP is held.
  8. At the Ramsar Convention Conference of the Parties in 2012, wetland tourism was featured in a case-research report about wetland tourism (Ramsar Convention Secretariat and UNWTO 2012). Sightseeing, guided walks, wildlife watching, canoeing, fishing, horse trekking, cycling, home stays, boat tours, photo safaris, cultural experience, snorkeling, relaxation, and so on were taken up in this report.
  9. Refer to the website of the Ministry of Environment. [http://www.env.go.jp/nature/ramsar\\_wetland/pamph04/](http://www.env.go.jp/nature/ramsar_wetland/pamph04/) (last accessed April 17, 2014).
  10. Asano et al. (2013) questioned ordinary people about their perception of all the 46 sites now registered. Asano et al. (2013) also investigated the image of and intention to visit Ramsar wetlands.
  11. This is a type of organic farming. In order to provide migratory birds with resting or feeding space, farmers continue to fill their rice fields with water in winter. By doing so, biodiversity of a paddy field becomes rich and rice farming is possible without the need to use weed killers and chemical fertilizers.
  12. Refer to the website of the Nature Restoration Project in Kushiro Shitsugen Wetland, Ministry of Environment. This is data from 2000. <http://kushiro.env.gr.jp/saisei1/modules/xfsection/article.php?articleid=45> (last accessed April 28, 2014).
  13. Information from interviews of Osaki municipal employees and the representative of the nature conservation group, “Japanese Association for Wild Geese Protection,” on March 4, 2011.
  14. Information from interviews on Yaku-island (from February 20 to 24, 2009 and from February 27 to March 3, 2010) and documents from Yaku-island’s area ecotourism promotion conference.
  15. Information from an interview with the “Kabukuri Numakko Club” (February 21, 2012).
  16. Information from interviews with the village mayors at the Ramsar wetland, Dongbeakdongsan, on Jeju Island in Korea (March 1, 2014).

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