Local Journalists as Guardians of Ice Cultural Heritage in Japan

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諏訪湖の伝統行事「御神渡り」には湖の全面凍結という条件が必要だが、近年は気候変動の影響で全面凍結しないことが多い。こうした伝統の危機を地元メディアはどう伝えてきたか。海外メディアとの比較で検証する。

Abstract

This research examines the challenges of news coverage of the risk of loss and damage posed by climate change, particularly focusing on local media. Using a case study of the ice tradition with a five-century history called '*omiwatari*' in Nagano, Japan, it investigates how media framing and journalistic norms affect local media coverage of the risk of loss due to climate change. Through comparative analysis of Japanese and foreign media articles and qualitative examination of local journalists' reporting, the research reveals differences in framing climate risks to the *omiwatari* tradition.

The results show that foreign articles focus on the loss of ice in the context of global climate change in a single article, while the local journalists in Suwa report the practitioners of the *omiwatari* by transforming the news value from the ice to the long tradition. The finding indicates that the climate risk for the local journalists is the loss of tradition. To avoid the loss, the local journalists wrote a series of articles about the *omiwatari* practice. This research discusses the influence of journalistic norms in and outside Japan in communicating climate change risks of loss and damage to the *omiwatari*.

Keywords climate change, intangible cultural heritage, climate change adaptation, Japan, loss and damage, media framing

Introduction

This paper investigates how the Japanese media covers the loss and damage caused by climate change by focusing on winter's intangible cultural heritage as a case study. Despite global concerns, interest in climate change is relatively low in Japan, especially among Generation Z (Deloitte-Tohmatsu, 2022). This discrepancy with the rest of the world indicates that Japanese civil society has a unique approach to climate change compared to the rest of the world.

Local media framing of climate change can delay reporting climate risks on local issues. Most media have focused on fostering collective action against climate change, while some claimed the priority of economic growth (Bushell, Buisson, Workman and Colley, 2017). Consequently, news articles tend to frame climate change as a global issue and do not reframe it as relevant to the local context (Marin & Berkes, 2013). In addition, local culture and values, such as cultural heritage, have not adequate attention from climate policy (Adger, Barnett, Brown, Marshall and O'Brien 2013).

Therefore, this research aims to understand the challenges of framing climate change issues in local news coverage, specifically in relation to loss and damage, through comparative research. Media coverage of climate change differs from country to country, and it is influenced by the cultural background of each nation (Anderson, 2009; Schmidt, Ivanova and Schäfer et al., 2013). This difference implies that some countries may prioritize specific aspects rather than climate change.

For example, the Czech Republic, which heavily relies on coal, tends to discuss coal mining separately from climate change (Lehotský, Černoch, Osička and Ocelík, 2019). According to Boykoff and Boykoff (2007), journalistic norms can determine the way climate change is covered in the media. These norms prioritize personalization, novelty, dramatization, and authoritative sources, which can affect how the media frames the issue of climate change (Boykoff, 2008; Boykoff & Boykoff, 2007).

This research investigates how Japanese local media frames the loss and damage caused by climate change, using the cultural heritage of ice called the "*omiwatari*" as a case study. The questions guiding this research are what focal points do Japanese local media emphasize in their coverage of the *omiwatari* tradition, and how do these differ from media coverage outside of Japan, and what journalistic norms influence the framing of climate risk on the *omiwatari* in Japanese local media, and how do these norms contribute to shaping media coverage?

To achieve this, this research uses a mixed-methods approach that includes content analysis of newspaper articles both in Japan and around the world, ethnography, and interviews with reporters covering the *omiwatari*. By doing so, this paper aims to identify the journalistic norms that shape media coverage of the *omiwatari*.

The following section introduces the case of omiwatari and explains the method applied. The subsequent sections describe the results of the content analysis and interviews and discuss the characteristics of the Japanese media covering the loss of the significance of the *omiwatari*.

Omiwatari ice tradition in Nagano, Japan

Located in Nagano Prefecture, Suwa is a mountainous region with a population of around 198,000. Lake Suwa, nestled amidst the Northern Alps, freezes in winter, forming spectacular ice ridges with echoing cracks. Having the feeling of awe of nature, local people believed that these ridges were the footprints of a male deity visiting his wife who lives on the other side of the lake (Nakazawa, 1965). Local people who took this sound as a signal from the male deity gathered to observe the appearance of the ice ridge and performed a ritual (Ito, 1957). The tradition of *omiwatari*, marked by these occurrences, dates back five centuries and draws media attention. (Sukigara, 1981).

The parishioners of the Yatsurugi Shrine have recorded the *omiwatari* in the *miwatari-cho*, the ice observation archival record. The *miwatari-cho* accumulated 582 years of records of the *omiwatari* occurrence since 1443. Despite its cultural significance, modernization disrupted this tradition (Miyasaka, 2007). Sakuhei Fujiwhara, a meteorologist who saw the value of this long ice record, collected the missing data. The tradition was resumed, and the shrine reports the occurrence (or non-occurrence) of the *omiwatari* to the Japan Meteorological Agency and the Imperial Household Agency every year. The cultural value of *omiwatari* has long been recognized. Its beauty is found in *ukiyo-e* prints and as mysterious stories in *kabuki* plays.

Today, climate change has threatened the continuity of the *omiwatari* (See Fig. 1.). The year without the omiwatari is called "*ake-no umi*" (sea of dawn) in the *miwatari-cho*. Arai (2000) found that the *ake-no umi* has increased since the Industrial Revolution of the 19th century. Kiyoshi Miyasaka, the current chief priest of the shrine, who saw a crisis in the succession of tradition in the continuous *ake-no umi*, has started daily observation of lake during winter with his parishioners since he began his priesthood in 1985 in Suwa (Nagano Nippo, 2022). Local people now recognize the observation of the lake as a traditional winter event. Local newspapers report on this daily lake observation during the observation period from the first day of winter (early January) to the first day of spring (early February) of the lunar calendar.

The Yatsurugi Shrine declared that 2024 was the 78th *ake-no umi* since 1443, and this was the sixth consecutive absence of the *omiwatari* since 2018. The Nagano Meteorological Observatory (2022) projects a temperature rise of 2.0°C to 4.6°C in Nagano Prefecture under the most stringent and most lenient CO2 emission scenarios. The National Climate Change Impact

Assessment Reports published in 2015 and 2020 recognize the declining occurrence of *Omiwatari* and other climatic impacts on local traditional events. However, these reports state that assessing the significance of the impact on local traditions is difficult due to the different climatic and socioeconomic conditions under which the traditions have been established, as well as limited relevant research (Ministry of the Environment, 2015; 2020).

Fig. 1. Changes in Lake Suwa's winter over one hundred years (Left: 1913, Right: 2023).

Sources: (left) Courtesy Yatsurugi Shrine. (right) Yoshimi Fukumura

Method

This research conducted a comparative study using a mixed-methods approach to identify the framing of Japanese media reporting on *omiwatari*. The comparative content analysis examined Japanese and international online news articles that reported on *omiwatari*. The analysis was further complemented by observations and focus group interviews with local journalists in Suwa who wrote the articles. So far, climate change coverage on cultural heritage is generally low (Boykoff, 2008; Lyytimäki and Tapio, 2009). Hence, the research was conducted between 2021 and 2022, when media attention to culture was more likely due to the global COVID-19 pandemic therefore less serious conflicts and crimes worldwide.

Google.com was used to collect both articles, as Google.com is considered the most effective search engine in multiple languages (Shaw & Graham, 2017). English articles were collected from online using the combination of "*omiwatari*," "lake," and "Suwa". One Dutch article published by a Belgian company was found. This article was machine-translated into English by Google Translate and included in the dataset. Due to the very limited number of available articles, we did not limit the publication dates of the foreign articles. All downloaded articles were read in their entirety to ensure that they were articles about *omiwatari*. In total, 14 English-language articles were collected.

Japanese articles were collected from online newspapers published between December 2021 and February 2022, when there is a high likelihood of a ridge occurrence. We found 28 articles from the regional sections of three national newspapers, 72 articles from three regional newspapers, one from a Japanese news agency website, and four from the websites of three Japanese television stations. A total of 105 articles were collected as data for this research.

The articles collected were text-mined by word cloud by Nvivo 11. Word clouds quickly highlight differences in article content and statistically summarize the text for comparative analysis (Heimerl, Lohmann, Lange and Ertl, 2014). In addition, the most frequently occurring words outline important points in the text (McNaught & Lam, 2010). This function means that visualization can be used without translation to effectively compare the framing of media in different languages and aid analysis by focusing directly on key topics.

Due to limited data, text such as titles and captions, author and publisher names, and submission dates were nominated as stop-words and removed from the analysis.

Although the word cloud can effectively visualize the important points of articles without close reading, it has limitations. First, words do not always appear in the cloud as they appear in context, and words that are not relevant to the text must be manually removed (Ramsden & Bate, 2008). The research also found it difficult to compare texts in different languages with one software; NVivo can analyze multiple languages, including Japanese, but it does not always recognize Japanese words accurately. Spelling is cut off at inappropriate places, resulting in a higher frequency of irrelevant terms and a greater number of stop words. However, this research prioritized consistency and conducted content analysis in the same environment.

In addition to the content analysis, this research applied an ethnographic approach to the local

journalists engaged in the *omiwatari* reporting at the observation site. The observation of the local journalists was conducted around a week in January and February 2021 and 2022, respectively. In addition, a focus group interview with journalists was held in 2022. There were approximately ten journalists regularly at the observation site. The researcher asked them for a focus group interview after the morning observation on January 12, 2022, and five responded. In addition, one local journalist volunteered for an in-person interview and answered the same questions in the focus group interview. In total, interview data from six journalists were collected. The following questions were asked:

1) How often do you join in the morning observation, and why?
2) Are your articles published every day?
3) What is the focal point of the reporting?
4) Have you ever reported *omiwatari* from a climate change perspective?
5) Which priority of climate change issues does your company have: low, middle, or high?

The data was then coded and analyzed in the narrative by linking the text-mining results.

Results

Focal point of foreign articles

Fig. 2 illustrates the word cloud generated from foreign media articles, highlighting frequently used words in orange—ice, lake, records, years, Suwa, and climate. These words corresponded to the *omiwatari* practice. Words in bold black were the next highest frequency—industrial, revolution, freeze, change, winter, and data. These words suggest a changing winter since the Industrial Revolution.

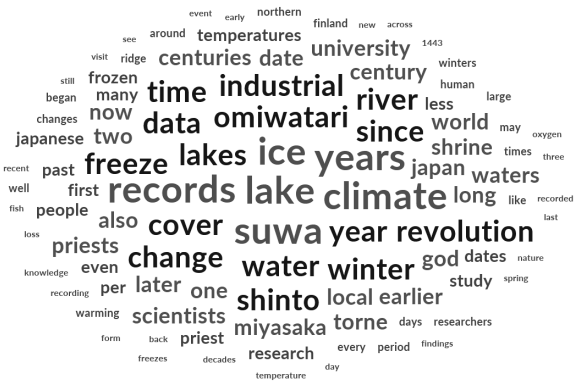

Fig. 2. Word cloud of the words in foreign articles (set a two-letter minimum length in Nvivo 11)

The narrative in foreign articles suggests a focal point on both the historical and the future continuity of ice formation on Lake Suwa. Twelve articles linked climate change in Suwa and the Industrial Revolution. The record was introduced as citizen science or indigenous knowledge. Some also mentioned that climate scientists used the data to track back climatic conditions centuries ago. Four articles featured the Priest Miyasaka. In these articles, his role as a key practitioner of the *omiwatari* was doomed due to increasing *ake-no umi*. An article predicted that the *omiwatari* will not be able to be observed after 2040.

Focal point of Japanese articles

Figs. 3 is the word clouds generated with the Japanese articles.

The key topics illustrated in Fig. 3 were 諏訪 (Suwa), 観察 (observation), 渡り (crossing), 宮坂 (Miyasaka, name of the priest) '宮司 (priest), and 結氷 (freezing).

The second most frequently used terms in bold gray include 今季 (this season), 厚い (thick), 総代 (representatives of the parishioner), センチ (centimeter), 期待 (expectation), 神社 (shrine), 諏訪湖 (Lake Suwa), せり (ridge), 全面 (entire surface), 午前 (morning), 出現 (occurrence), 続く (continue), 湖面 (surface of the lake), 気温 (temperature), 氷点下 (below zero), 上がる (rise), and 続ける (continue). All these terms correspond to the daily observation practice.

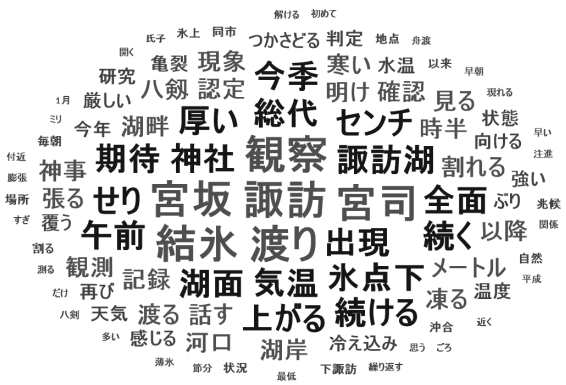

Fig. 3. Word cloud of the words in Japanese articles (set a two-letter minimum length in Nvivo 11)

The narrative of the Japanese news articles reporting the *omiwatari* was analyzed during the morning observation period in 2022, in addition to the number of articles reporting local events related to *omiwatari*. The following shows the results.

In 2022, the first ice formation on Lake Suwa was observed on the 3rd of January. Even though it was out of the observation period, two local newspapers reported it in conjunction with *omiwatari*. Subsequently, six out of seven newspapers reported on the 5th or the following day that the Shrine initiated the observation, according to the publishing schedule of the newspaper companies. On the 7th, the lake was fully frozen for the first time, though it soon melted before refreezing on the 10th. Likewise, the ice repeated the freezing and melting. On the 24th, the strong wind broke the ice on the lake into big pieces and washed them onto the shore of the lake, which made a spectacular. Local people and tourists came to take pictures of the scenery while stepping on the ice. The local officials flew a drone to warn them to stay away from the lake. On the 29th, the priest stated the unlikely occurrence of *omiwatari* this year. The shrine then terminated the observation on the 5th of February. The ritual that announced *ake-no umi* to the gods, as well as the Meteorological Agency and the Imperial Household Agency, was held on the 20th.

The number of news articles reporting about *omiwatari* increased on the 7th, 29th of January, and 5th of February. These dates matched with the Shrine's activity related to *omiwatari*; initiation of the annual observation, the statement of the priest's prospect of the absence of *omiwatari*, and the termination of the observation (see Fig. 4).

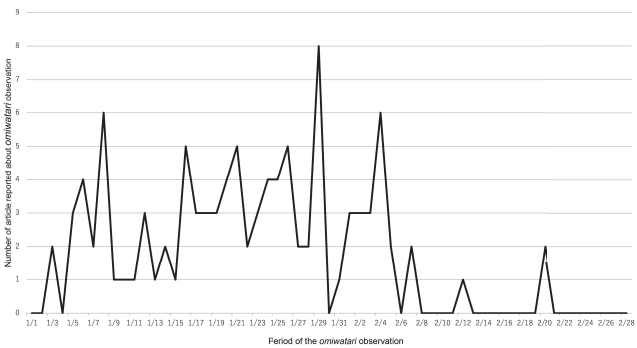

Fig. 4. Local media reporting about the annual *omiwatari* observation in 2022. The number of local media coverage varied in line with changes in ice conditions during the observation period.

Observation of the local journalists and the focus group interview

Local journalists at the *omiwatari* observation site were observed for three consecutive days in January 2021 and 2022, respectively. Some newspaper companies sent their journalists by taking turns to the site, but many voluntarily showed up. Their experience joining the *omiwatari* observation ranged from a year to thirty years or longer. They gathered at the site even when the chance of occurrence of *omiwatari* was slim, like it was too warm or raining.

The journalists and the people of the shrine had a friendly atmosphere. The journalists helped the shrine people observe the lake. For instance, a journalist with a large flashlight illuminated the narrow lakeside path for the observers. Although no one claimed it, the journalist group seemed to have a leader with long experience joining the observation. The leader journalist once said that the motivation for reporting was to encourage the priest and his people to continue the morning observation. The leader quietly organized the morning observation to prevent accidents during the *omiwatari* observation. For

instance, during the observation period 2022, the prefecture raised the alert level for COVID-19 infection control. To follow the code, the leader suggested limiting the number of journalists who came to report and when. The rest followed his instructions.

On the other hand, a middle-aged journalist who was recently transferred to the Suwa branch said that he did not know *omiwatari* before his move. He said that he went to a local museum to learn about the history and phenomenon. He also said he joined the morning observation to fulfill his weekly duty. Although he had lived in Suwa for less than a year, he felt his readers had a keen interest in *omiwatari* and how frozen Lake Suwa was at this time of year.

The journalists at the site acted independently and focused on the reporting. Some followed the members of the parishioners to the lake while others were interviewing visitors who stopped by the observation site. The morning observation always ended with an on-the-spot interview with the priest. The priest stated his feelings or perspectives of the ice formation in line with nature, which is the divines of the Shinto religion. Some journalists occasionally asked the priest how he felt about the warming winters and the continued 'ake-no-umi.' The priest's answers were about the religious perspective of nature, such as climate is beyond human control, and he did not mention climate change or global warming during the observation period of this research.

As for the focus group interview, six journalists responded to my call. They had less than ten years of experience in *omiwatari* observation. Three of the six worked for a local branch of major newspaper companies, and two were from local newspaper outlets. One was from a public broadcast. Two major newspapers had a high priority on climate change coverage, whereas a national newspaper declared the importance was middle. Two local newspapers had low priority, although the journalist who belonged to one of them anticipated the priority would increase.

The six came to the observation site almost daily. The reason was the media's responsibility for not missing news. Some journalists claimed that watching changes on the lake was interesting and had become a daily routine. All the interviewees agreed that the priest's observation of the lake was newsworthy and met the demand of local readers. A journalist wanted to report on the decline of a seasonal tradition, while another journalist who grew up in the prefecture where Lake Suwa is located said that the purpose was to share stories related to the local myth and to pay respect to the ancestors.

Two of the six journalists had prior experience reporting on the phenomenon of *omiwatari* in relation to climate change. One journalist worked for a national newspaper company that placed an extremely high priority on covering climate change, while the other journalist worked for a local media company with a moderate priority on climate change coverage. However, this journalist was from Nagano, where *omiwatari* is more common. The remaining journalists had not reported on the less frequent occurrence of *omiwatari* in relation to climate change, despite their news companies placing a relatively high priority on climate change coverage. One journalist explained that they had limited opportunities to report on climate change under their circumstances.

Discussion

This research analyzed how local media outlets reported on the *omiwatari* tradition in Japan, which the community has nurtured for five centuries. The ritual involves ice ridges generated on Suwa Lake, but due to warm winters, the years without the *omiwatari* have been increasing. As a result, Suwa's *omiwatari* is facing the threat of disappearance. This research examined how the media framed the risk of the loss and damage related to the *omiwatari* caused by climate change.

The comparative word clouds produced with the contents written in Japan and abroad clearly visualized different perspectives. The primary focus of the foreign media was placed on the long record of the ice on Lake Suwa. The *omiwatari* was described as a Shinto ritual, and the phenomenon was reported in relation to the Industrial Revolution and the changing winter (Fig. 2). In contrast, the Japanese media focuses on the daily morning observation of the ice on the lake (Fig. 3). The protagonists of the narrative are the shrine priest and the

people who observe the ice every morning. These differences in the word clouds explain that the foreign media frames the *omiwatari* in line with climate change. In contrast, the Japanese media narrative is directed at the observation of the lake. This research also identified that local branches of the major newspaper companies reported *omiwatari* and the observation in parallel with noteworthy events (Fig. 4). On the other hand, the two local newspaper companies kept reporting the observation throughout the observation period.

The different media perspectives in and outside Japan are compatible with previous research (Lehotský et al., 2019). In this research, the differences in the coverage may be due to the nature of the media: coverage as a one-shot article and as a series. Readers outside Japan might not necessarily be interested in the local traditional practices of an island nation. In the context of climate change, it is natural that the news value is placed on the risk of the loss of the long history when written in a single article.

Media coverage of climate change is volatile and short-lived (Sampei & Aoyagi-Usui, 2009), often reported with major events such as political conflicts or extreme weather (Schmidt et al., 2013). Anderson (2009) referred to Down's issue-attention cycle to explain how soon media attention fades if the dramatic value decreases. To maintain news value, journalists have tried framing climate issues in conjunction with culture and society (Lyytimäki & Tapio, 2009). Seeing the *omiwatari* case from outside Japan may have dramatic news value: climate risk on the continuity of a long tradition. By focusing on the past and future of the *omiwatari* ritual, whose destiny has been threatened by climate change. The dramatization and the novelty of the story can contribute to the increase in the global media coverage of climate change.

In contrast, Japanese local media may employ personalization norm to report on the seasonal event within a specific period to meet readers' demand. Writing a series of articles with a single case in line with invisible climate change may be almost impossible. It is understandable that journalists consequently focus on changes that are visible in everyday life. Hence, for the local journalists who report the *omiwatari* tradition, the dramatic news value can be placed on the morning observation and the changing ice condition, with the priest and his parishioners as the protagonists.

Personalization has contributed to increased news coverage about climate change while making people feel closer to the climate change issues (Boykoff & Boykoff, 2007), which are often considered 'distant and cloudy' (Crabbé & Robin, 2006; Measham, Preston, Smith, Brooke, Gorddard, Withycombe and Morrison, 2011). The approach focuses on the challenges and predicaments of individuals so that the story attracts readers' attention. The foreign articles may utilize the personalization norms in the context of climate change, featuring the priest and his history and destiny. On the other hand, as the word clouds and the focus group interview explained, the Japanese local journalists primarily focus on the present situation of the *omiwatari* tradition. The observation of the local journalists of this research revealed that the purpose of the Japanese local media coverage was partly to encourage the practitioners of the morning observation. From the Japanese local media's perspective, the disappearing ice ridges on the lake may be the practitioners' challenge, not a climate change issue.

Another reason for the Japanese local journalists' framing can be attributed to authorization norm. Journalists need authorized or official sources for media coverage (Anderson, 2009; Boykoff & Boykoff, 2007). The IPCC, which is the authoritative body regarding climate science, concluded in its Sixth Risk Assessment Report that economic or non-economic damages of cultural losses have not been fully studied, although climate risks to the human dimension can cause severe impacts on cultural heritages of ice and snow (IPCC, 2019). Similarly in Japan, climate impact on culture has only minimally been assessed due to a lack of scientific evidence (Ministry of the Environment, 2020). Moreover, the priest did not relate the absence of ice and climate change, at least during this research. Without his comments, the journalists could not report on the tradition in line with climate change. The absence of reliable sources of climate impacts on the *omiwatari* tradition may

hamper the Japanese local journalists from reporting the climate risks.

In addition to the lack of supportive information, reporting the climate risk of local tradition may be a risk for local media, particularly if the culture involves myth or religion. Schmidt et al. (2013) note that journalists judge what appeals to readers. These criteria can influence key topics in local media coverage, particularly when subscriptions to newspapers are decreasing in Japan (Villi & Hayashi, 2017). The intrusion by outsiders into cultural spaces that have been exclusively nurtured and appreciated by the community over centuries is troublesome (George, 2010). As media coverage requires to meet readers' demands, de-framing climate change from the local cultural heritage of ice can be part of risk management for the Japanese local media.

Finally, despite the limited sample, this paper would like to endeavor to discuss what enables local media to report climate risks in local culture. The focus group interview revealed that a local journalist reported *omiwatari* in the context of climate change even though the priority of climate change issues in the newspaper company to which the journalist belongs is not high. What makes this journalist different from the other colleagues is his birthplace is in the prefecture where Lake Suwa is located. The local journalist and the community can share the same value of *omiwatari* and its historical background. The intentions of the journalist's reporting include local myth and ancestor contributions to *omiwatari*. The local journalist oneself is a stakeholder of the *omiwatari* tradition, not an outsider. This is supported by the fact that the leader of the journalist group suggested rules for reporting the morning observation to his colleagues so that the confusion of COVID-19 would not disrupt their daily coverage of the *omiwatari*, and the journalists followed them. Given the value of the local culture and its climate risks, the journalistic norm of personalization can crowd out other norms.

A limitation of this research is the very limited sample size. However, minimal research has been conducted on the impact of climate change on cultural heritage in Asia (Orr, Richards and Fatorić, 2021), let alone in Japan. With climate change rapidly changing the climatic conditions under which local cultures have been established, further research on media coverage that contributes to raising awareness of climate change risks to local cultures of ice is an urgent issue.

Conclusion

This research discussed the important role of local media in protecting local winter cultural heritage from climate change, using *omiwatari* as a case. Local culture is a source of identity. People pass on their traditions for generations and take pride in being part of that culture. Local newspapers are involved in sharing the value of local cultural heritage within their communities. However, this research found that local media do not always contribute to raising awareness of climate change risks to local cultural heritage, partly because media coverage of climate change is unstable, and journalistic norms may discourage reporting climate change risks on traditions.

This research conducted a content analysis of news articles on *omiwatari*, a Japanese Shinto ritual with a history of more than five centuries. In addition, by observing and interviewing local journalists in Suwa, this research examined journalistic norms that prevent or encourage local reporters to report climate change risks to the *omiwatari*. The comparative analysis of foreign online media articles and local Japanese newspapers illustrated the differences in the nature of the media. Foreign media reported the *omiwatari* in a single article in the context of global climate change, highlighting the risk of the loss of ice ridges on Lake Suwa that represent the significance of *omiwatari*. In contrast, a series of articles produced by local Japanese journalists focused on the daily practices of the shrines according to the changing ice conditions.

The results indicate that the loss of ice ridges connected to Japanese mythology presents novel and dramatic value for foreign media. On the other hand, the risk of climate change from the local media's perspective was the loss of a five-century tradition. The local media seemed to try to avoid the risk by a series of articles that drew the community's attention to the *omiwatari*.

Local media plays a crucial role in raising awareness of the climate-related risks that pose a threat to local

cultural heritage. However, the current coverage by Japanese local media on the diminishing *omiwatari* is inadequate in terms of alerting people to the actual risk. However, the local journalists in Suwa have transformed the news value of the *omiwatari* from ice ridges into a series of articles aimed at protecting local culture and traditions. They focused on the morning observations done by the priest and their people. The media has served as a connection between the *omiwatari* practitioners and the local community. It is evident since they kept reporting the observation even during the COVID-19 pandemic. Future research could investigate how the bonds between the practitioners and the local journalists could contribute to safeguarding the *omiwatari* through news coverage.

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