

Mass Media Coverage on Climate Change Issues and Public Opinion in Japan

MIDORI AOYAGI | NATIONAL INSTITUTE FOR ENVIRONMENTAL STUDIES

In this paper, I described the relationship between media coverage and public perception of “the most important issues in Japan” from 2005 to 2013. I used 1) our monthly public opinion survey results, and 2) newspaper coverage data on the March 11, 2013 disaster issue as the representative for all media coverage. I discussed these relationships chronologically. The March 11th earthquake in 2011 occurred in the midst of economically difficult conditions in Japanese society after the 2008 financial shock.

After the disaster, the response rate of “the disaster” as well as “economy” and “finance” had been the three highest categories among all responses. I must also refer to the differences between nationally circulated newspapers and local ones. Nationally circulated newspapers have shifted their attention to other issues quicker than local newspapers. Nationally circulated newspapers wrote many articles when the disaster had occurred, but the number of articles soon declined.

Introduction

When the Kyoto Protocol went into effect in February 2005, news coverage of climate change peaked, but soon declined. Japan's news coverage of climate change remained low until the release of Al Gore's movie "The Inconvenient Truth" in January 2007, followed by the release of the Intergovernmental Panel on Climate Change's (IPCC) Fourth Assessment Reports from late January to early May 2007. In 2008, the Japanese government announced its long-term greenhouse gases reduction target (50%) in 2050; the G8 summit was held in Toyako, Hokkaido, in June; and Prime Minister Hatoyama announced Japan's mid-term greenhouse gas target (25%) in October. From January 2007 until September 2008, there was extensive news coverage on climate change, and people talked about "global warming" in their everyday lives.

However, the issue of climate change was superseded by the Global Financial Crisis that began in the summer of 2008, and the economy was one of the top issues in the society until the Great East Japan Earthquake occurred in Tohoku in March 2011. Public perceptions changed in parallel with those events. These relationships between public perceptions and media coverage on various events in the society become clear when we track the Japanese public's perception of the importance of climate change.

Among the many issues noted, I assessed the issue of climate change based on (1) frequencies and temporal trends of response rate as domestic and international issues, (2) volume of news coverage on climate change issues in three major Japanese newspapers.

Data

To examine the relationship between mass media coverage on climate change and public response to this coverage, we have conducted monthly surveys of a pool of nationally representative Japanese public (20 years and older) since 2005. In this survey we asked two questions: "What are the most important issues in Japan?" and "What are the most important issues in the world?" I categorized the responses into several salient issues in the society and tracked their response rates based on the issues noted by the respondents. According to the classic theories in the fields of mass media and public opinion, these responses were influenced by how the mass media

framed national and international issues and how much coverage those issues received (Sampei and Aoyagi-Usui, 2009).

This study used a three stage probabilistic random sampling protocol. The number of respondents accounted for about 1000 people among the 4000 sampled based on 150 sampling points. In each sampling point, respondents are chosen based on residential maps in each point. A survey research company, Central Research Company, sent about 150 trained interviewers to the respondents' homes for face-to-face interviews. Respondents were asked the two questions and responded in their own word(s). I asked our question as open questions, so that respondents' answers are a word(s). Then I classified those answers into some major categories. Due to the Great East Japan Earthquake, the survey was not conducted in March and April 2011, but resumed in May 2011.

Results

The most important issues in Japan and the East Japan Great Earthquake

Figure 1 shows the nine years of survey results regarding the most important issues in Japan from April 2005 through December 2013.

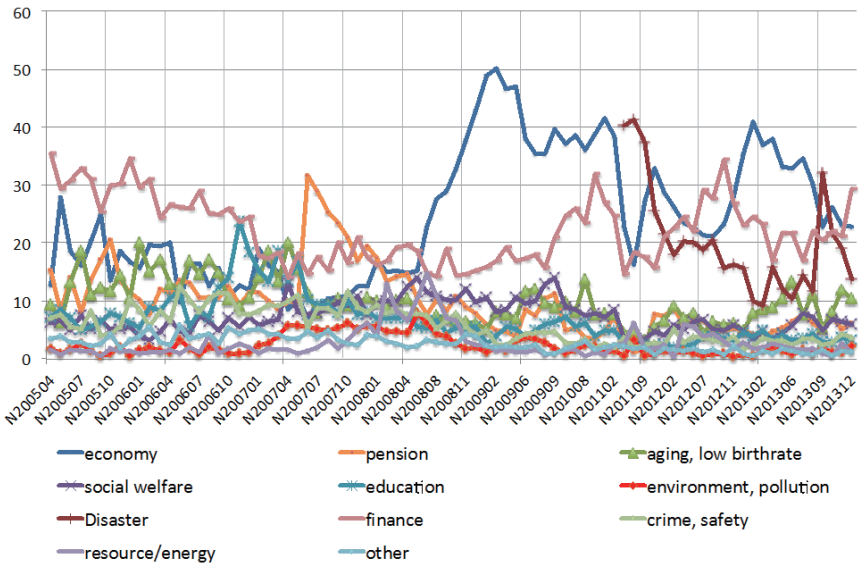


FIG. 1.—The most Important Issues in Japan (2005~2013)

Throughout 2005 and 2006, “politics/finance” was identified as the most salient issue. Prime Minister Junichiro Koizumi executed the privatization of the Japan Post, the operator of the country’s postal savings system. With regard to this privatization, there was a fierce political struggle between members of Japan’s ruling party, the Liberal Democratic Party, and the prime minister. Around this time, a new party, the Democratic Party of Japan, emerged and gradually gained political power. In the summer of 2007, the mass media wrote about the possible breakdown of the national pension system, and citizens were concerned about their livelihoods after retirement. In the summer of 2008, the Global Financial Crisis caused by the bankruptcy of Lehman Brothers also had huge impact on the Japanese economy. “Economy/unemployment” remained as the main issue until March 11, 2011, when the Great East Japan Earthquake occurred.

After the earthquake, I could not carry out our survey in March and April 2011, so the first survey after the tragedy was in May 2011. The figure highlights the issues of “the earthquake” and “economy/ unemployment” based on response rates of the nationwide sample.

With regard to the earthquake being identified as the most important issue in Japan after March 11, 2011, it is interesting to note that nationwide response rates in May and June 2011 were higher than those in the Tohoku region, where the tsunami resulting from the earthquake struck. A professor from Tohoku University told us that it took several months for people in the Tohoku region to recognize how large of an impact the disaster would have on their lives, as whole infrastructures including electricity was completely damaged in the coastal areas of Tohoku, and people could not watch TV programs for several months.

The response rates for the earthquake peaked in the Tohoku region in the summer of 2011. During this period, farmers and people in the food industry in the Tohoku region were worried about the radioactive contamination of vegetables following the Fukushima Daiichi Nuclear Power Plant explosions. Agriculture is one of the main industries in the Tohoku region, and once this contamination was reported by the mass media, sales of agricultural goods and other products from Tohoku region dropped drastically. The disaster caused the region to suffer economically. Additionally, people in other regions, such as Tokyo, also were afraid of the radioactive contamination of their region, as there were several “hot spot” areas outside Tohoku region.

Around November 2011, “economy/unemployment” overtook “the earthquake” as the most important issue both nationwide and in the Tohoku

region. The response rate for “economy/unemployment” in the Tohoku region had three peak periods, which corresponded to events concerning the accidents at the Fukushima Daiichi Nuclear Power Plant and contamination of radioactive materials. At the end of 2012, “economy/unemployment” was identified as the most important issue in Japan both nationwide and in the Tohoku region. According to the labor statistics of the Ministry of Internal Affairs and Communication (2013), in November and December 2012 the unemployment rate worsened slightly, especially among younger workers (i.e., those in their 20s and 30s).

The mass media coverage of the East Japan Great Earthquake

Figure 2-1, 2-2, 2-3, and 2-4 show the number of newspaper articles

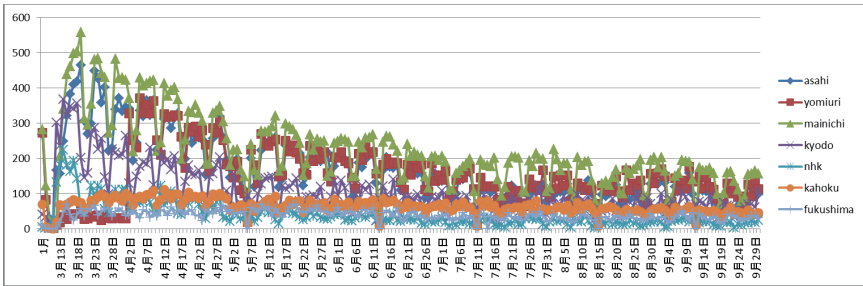


FIG. 2-1.—Number of News Articles “the Great Earthquake” (March 11~Sep 30, 2011)

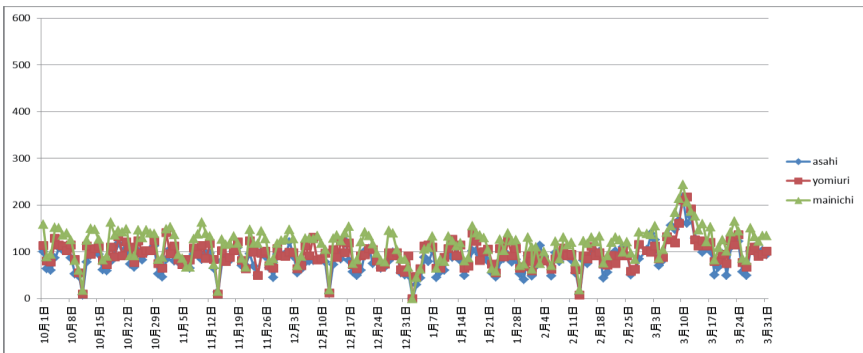


FIG. 2-2.—Number of News Articles “the Great Earthquake” (October 1, 2011~ March 31, 2012)

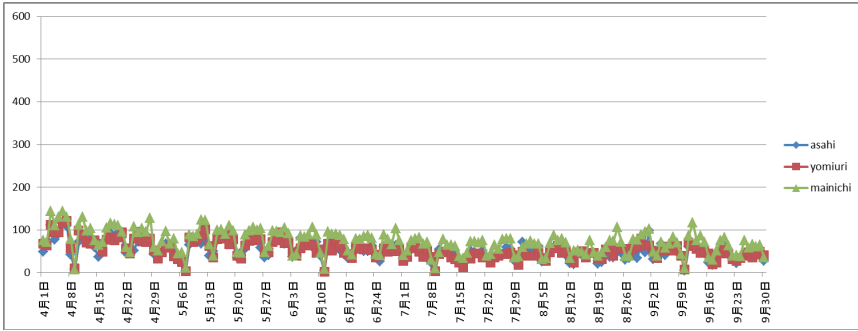


FIG. 2-3.—Number of News Articles “the Great Earthquake” (April 1~Sep 30, 2012)

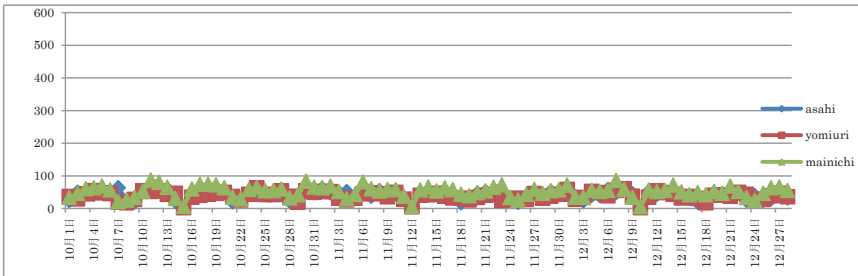


FIG. 2-4.—Number of News Articles “the Great Earthquake” (Oct 1~Dec 31, 2012)

using the phrase “The Great Earthquake” from March 11, 2011 to December 31, 2012. There were nearly 600 articles daily about the earthquake during the second week of March 2011, shortly after the disaster. The numbers gradually decreased until December 31, 2012 at the level of about 50 articles each day. This tendency of decreasing news articles is likely one of the reasons for the decreasing response rate for the earthquake in Figure 1.

In Figure 2-1, numbers of articles of six newspapers and one television news show are shown. Among six newspapers, three (Asahi, Yomiuri, and Mainichi) are nationally circulated ones, and two (Kahoku Shimpo and Fukushima Minpo) are local Tohoku ones. Kyodo is a major news service company, which distributes news articles to newspaper companies. Kahoku Shimpo is based in the Sendai region and Fukushima Minpo is based in the Fukushima region. The numbers of articles of two local ones and four nationwide ones went differently. Local two newspapers kept around one

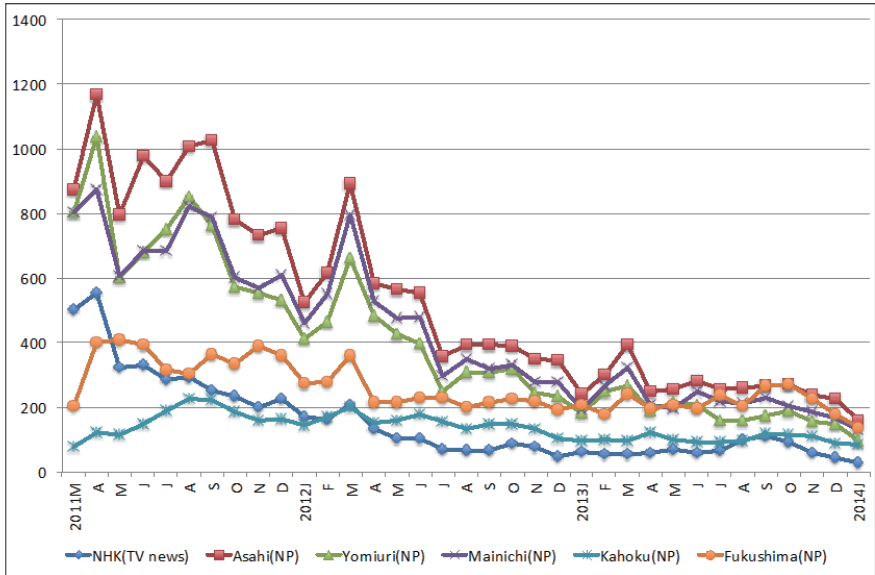


FIG. 3.—Monthly Newspapers Coverage Radioactivity or Radiation from March 11 to January 2014

hundred everyday, while national newspapers kept from 500 to 200 articles daily after the disaster.

Figure 3 shows the monthly summary of newspaper coverage on the disaster. This also shows the different patterns of frequencies in newspaper coverage of the disaster. The two local newspapers’ coverage remained stable less than 200 articles. Numbers of articles that nationally circulated newspapers tended to report more numbers than local ones, and had some peak periods. The first peak period was April 2011, next was the summer of 2011, and the third peak period was March 2012, followed by March 2013. The peak periods of March 2012 and 2013 were memorial articles for March 2011 earthquake.

The articles for first peak period of April 2011 were about the disaster’s impact and the nuclear power plant accident. April in Japan is usually the beginning of the fiscal year and school year. There were many articles about the cancellation or postponed fiscal year beginning events. The summer peak period was about the radioactive contamination on agricultural products, not only in Fukushima, but also in the northern Kanto region and other neighboring regions.

The reasons for these differences are as follows.

1) From March 12 to September 30, the main facilities for editing and publishing were seriously damaged and there was a shortage of papers. Two local newspapers could not circulate their papers or published their papers with less pages. As a result, they could not write enough articles on the disaster and numbers of articles remained low in local newspapers.

2) I searched articles that included the “The Great Earthquake.” In disaster-stricken areas, local newspapers were more likely not to use these key words, as reporters wrote articles that were more closely connected to the people’s everyday lives. In other words, every event was related to “The Great Earthquake” so that reporters did not need to use these key words in each article.

3) In disaster-stricken areas, people tended to distinguish the causes of disaster. “The Great Earthquake” affected the Iwate and Miyagi area and the Fukushima area differently. In Iwate and Miyagi, people were affected mainly by the tsunami caused by the earthquakes of March 11. However, in Fukushima, people were affected by radioactivity caused by the nuclear power plants exploding. Thus, each article tended to use “tsunami,” “earthquakes,” or “radioactivity”.

After October 2011, the daily number of articles nationally circulated newspapers was the almost same as the two local newspapers. The number of articles was less than one hundred after the summer of 2012 in nationally circulated newspapers.

The contents of nationally circulated newspapers and local ones were also different. Referring to point 2), national newspapers tended to associate March 11 with “The Great Earthquake,” or “nuclear power plant accident,” but local papers tended to deal with each causation as “tsunami,” “earthquake,” and “nuclear power accident.”

“Water Contamination” issue and media coverage

The impact of “the Great East Japan Earthquake” also caused many other issues including “water contamination”—radioactive contamination in seawater around the Fukushima Daiichi nuclear power plants. This issue received heavy media coverage from April to July 2011. Because of the space limitation for keeping water tanks for storing contaminated water from the plant site, those contaminated water were emitted into to the sea.

This issue received attention again in the spring and summer of 2013. At the spring, Tokyo Electric Power Company (TEPCO) who owns and

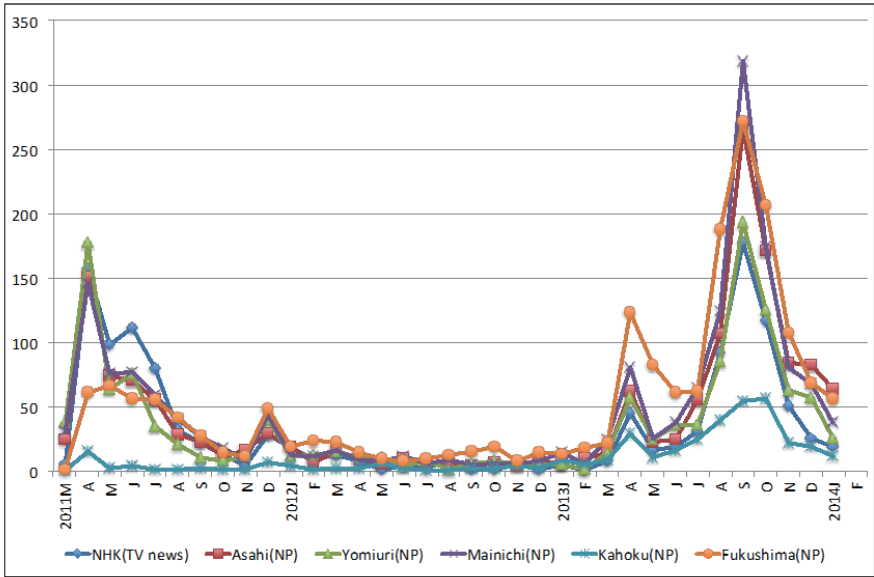


FIG. 4.—Monthly Newspapers Coverage of (Contaminated Water) and (Nuclear Power Generation OR TEPCO) from March 11 to January 2014

manages the nuclear power plants in Fukushima found that the contaminated water at the power plant site leaked into the sea thorough underground paths. TEPCO investigated the causes of this and tried to stop the leakage, but they were unsuccessful.

Unfortunately, this issue was brought up yet again in September at the final selection meeting for the 2020 Olympic games. During Tokyo’s proposal presentation, a European reporter asked Prime Minister Shinzo Abe about the contaminated water from the Fukushima Daiichi nuclear power plant. Prime Minister Abe clearly answered that “it will be completely safe”. His response received heavy media attention, as seen in Figure 4. The reason for all this media attention was not only due to the media reporter, but also, Head officials of TEPCO, and the former chair of the United States Nuclear Regulatory Commission, voiced their opinions against the Prime Minister’s response stating that the “contaminated water is under control” (Kyodo News Service, September 5th, 13rd and 24th, 2013).

The public also paid attention to this issue. As shown in Figure 1, the response rate for “disaster” reached a peak in September 2013 and this corresponded with the media coverage. This peak period was the highest

during that month. This clearly reflects the media coverage on the issue of contaminated water.

Discussion

In this paper, I described the relationship between media coverage and public perception of “the most important issues in Japan” from 2005 to 2013. I used our monthly public opinion survey results, and we focused on the public perceptions of the importance of the Great East Japan Earthquake of March 11, 2011. We also used newspaper coverage data on this issue as the representative for all media coverage. I discussed these relationships chronologically.

Economy and finance are currently the most important issues in Japanese society since the summer of 2008, after the global economic crisis. The “economy” includes unemployment, and “finance” includes the financial deficit of Japanese government. The March 11th earthquake in 2011 occurred in the midst of these difficult conditions in Japanese society. Following the disaster, the unemployment rate recorded a historic high in Japan and financial deficit became worse. These societal conditions slowed down disaster recovery. People who evacuated from disaster-stricken areas found difficulty seeking out jobs.

Following the public’s perception of “the most important issues,” I can understand those difficulties, such as disaster and related events such as food contamination issues in the summer of 2011, contaminated water issues in the spring of 2011 and in the summer of 2013. After the disaster, the response rate of “the disaster” as well as “economy” and “finance” had been the three highest categories among all responses. When I focused on “the disaster,” its response rate had declined as time went on, but as we have seen in Figure 4, people had a very quick response to the news coverage of disaster-related issues, such as contaminated water. People still remain sensitive to the disaster issue.

I must also refer to the differences between nationally circulated newspapers and local ones. Nationally circulated newspapers have shifted their attention to other issues quicker than local newspapers. Nationally circulated newspapers wrote many articles when the disaster had occurred, but the number of articles soon declined.

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MIDORI AOYAGI is a researcher at Social and Environmental Systems Center in National Institute for Environmental Studies. *Address:* 16-2 Onogawa, Tsukuba, Ibaraki 305-8506, Social and Environmental Systems Center, National Institute for Environmental Studies, Japan [*E-mail:* aoyagi@nies.go.jp]

