

Two-way public dialogues about BSE risk communication in Japan: Increasing involvement of Hokkaido prefectural government

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わが国における相互対話による BSE リスクコミュニケーション：北海道庁との関係改善の理由

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Abstract

Communicating risks of food safety can be a difficult undertaking for many reasons. Many approaches have been proposed with various levels of success. Two-way communication is arguably the most desirable factor, and including as many stakeholders as possible is undoubtedly ideal. This paper reviews the events of BSE outbreaks in Japan and the faulty communications that took place between the government and citizens. The ensuing communication gap still exists, but this paper shows several strategies for employing two-way dialogues as a means to resolve the gap. Over a five-year period (2010-2015), stakeholders from academia, government, industry, and consumer groups actively participated in the dialogues. Initially, local government involvement was minimal, but as time ensued, perseverance of the authors succeeded in creating an atmosphere where those officials eventually accepted their role. Details on the public dialogues and workshops may be useful for all future food safety problems anywhere, not just for the specific one involving BSE here.

Keywords: BSE, Hokkaido Japan, public dialogue, risk communication

Introduction

The first case of bovine spongiform encephalopathy (BSE) in Japan was confirmed on September 10, 2001 (Kimura et al. 2002). This cow was born in Hokkaido, but

raised in Chiba/other prefecture. Hokkaido is located in the northern part of Japan and the main industry is a primary sector such as dairy and crop production. In fact, BSE issues in Japan could be called as the Hokkaido ones, because 28 of all 36 BSE cases are born in Hokkaido and one case was born

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in other prefecture but raised in Hokkaido.

Tanaka (2008) described why and how the Food Safety Commission (FSC) of Japan was created in July 2003 based on the Food Safety Basic Act in response to the outbreak. However, BSE crisis communication failed in Japan and such a new expert institution for food safety did not establish a congenial relationship between science and ordinary citizens. Instead, public distrust toward the government grew rapidly with respect to information flow (risk communication) concerning the risk of BSE entering the human population and measures being taken to handle it (Nottage 2003; Yamaguchi, 2014). The information “gap” between science and public trust negatively affected Japanese perceptions of risk assessment, which in turn led to further poor responses by the government (Kadohira et al. 2011).

Since 2004, risk communications have been conducted by the government, but were not executed very well (Gray & Ropeik 2002; Ogoshi et al. 2010), because such activities did not create an ideal (i.e., interactive) exchange of information and opinions. Even when BSE control regulation on healthy slaughter was modified the second time based on risk assessment conducted in 2013, risk communication was one way, merely informing the public of modified rules.

We define “risk communication” as follows: Risk communication is an activity for understanding and sharing information and viewpoints through a dialogue with a variety of stakeholders in society, culminating in people thinking and working together. Along this line, a series of risk communication research activities were conducted in the form of workshops between 2010 and 2015. The overarching objectives of the workshops were to think proactively about the future of BSE risks by reflecting on the past, and to solve problems while respecting values of each stakeholder. Each risk communication workshop, labeled as case studies 1~4 had specific objectives and varied styles. However, we did not set up such goals from the beginning. We simply conducted them and added changes to each one by one, gradually

building trust among participants/stakeholders.

In this paper, we focus on the changes in the level of participation of a local (Hokkaido prefectural) government (HPG). We consider HPG to be a very important player in achieving the objective of minimizing the information gap mentioned above by its role in properly organizing risk communication. By the final stage of the workshop series, we succeeded in creating a two-way dialogue risk communication environment together with HPG.

The objectives of our paper are twofold:

1. To describe our four case studies
2. To discuss why we university researchers managed to start working together with HPG with respect to risk communication.

From the results, we discuss what is to be done in relation to achieve a better understanding of the role of local government and all food-related risks among ordinary citizens in Japan.

Materials and Methods

Table 1 shows summaries of each of the four case study workshops in 2010-2015. Case study number, date, activities/ title, and number of participants are among these details. It is important to note that there were three instances where a year had elapsed between certain case studies because we needed sufficient time to discuss, plan, and prepare for coming workshops. The first two authors, whose working bases are Obihiro (center of dairy industry) and Sapporo (capital city of the prefecture) in Hokkaido, organized and attended all case study sessions so as to lead, guide, and take part in the activities. Venues were as follows: case study 1 (Obihiro), case studies 2 & 3 (Obihiro & Sapporo), and case study 4 (Tokyo).

Table 1. Dates and activities of four case study workshops

#Case Study	Date	Activity/Theme*	#Participants
1-1	1/13/2010	Identify diversity of agony in SH caused by BSE outbreaks	13
1-2	3/17/2010	Listen to BSE researchers who got involved in risk assessment and laboratory experiment	14
1-3	4/19/2010	Listen to a dairy farmer who lives in the same town where BSE cases were detected	13
1-4	6/9/2010	Listen to housewives who are members of the Obihiro consumer cooperative society	14
1-5	7/12/2010	Abattoir manager's story of developing new methods on slaughtering and removing SRM in Hokkaido	11
1-6	10/4/2010	President of a meat processing company in Obihiro, how he made effort to increase meat consumption	10
1-7	11/29/2010	A newspaper reporter told us his own opinion on how to approach media	12
One year has passed			
1-8	12/7/2011	Summarize 7 meetings and discuss what's next	5
2-A	12/11/2010	Theme: "Connecting past and present"	84(lecture), 31(deliberation)
2-B	7/7/2012	Theme: "Making scenarios towards negligible BSE risk"	30 (lecture) 8 (deliberation) 200 (through SNS)
3-A	1/17/2013	Theme: "Risk communication by checking evidence together"	35
One year has passed			
3-B	1/25/2014	Theme: "No test, no trust?" and "Was the feed ban successful?"	24
One year has passed			
4	1/24/2015	Theme: "Importance of conceiving roadmap"	24

SH: Stakeholder SRM: Specific risk material SNS: social networking service (Twitter)

* Theme of the case study 1 meetings was "Looking back, seeing futures".

Case study 1 (meetings 1~8): Participants reflected on the time of the BSE occurrence and aimed at sharing information and feelings from that time among participants. They also discussed the possibility of refining the meaning of comprehensive (100%) cattle inspection from various viewpoints. The study consisted of eight small meetings closed to the public and held in Obihiro, Hokkaido, for 2-3 hours each time. The stakeholders in attendance included selected consumers (housewife members of a consumers group), HPG officers (research and administration), dairy farmers, newspaper staff, meat processing company staff, and head of livestock section of a local Japan Agricultural Cooperatives (JA). Each session had a different speaker telling their story (Table 1), followed by open discussion where the participants listened to points of view, feelings, and information. The objective was to learn what people felt about BSE cases that were described, talk from the standpoint

of what BSE is rather than what the outcome was at that time, and to find ways to bridge gaps in knowledge.

The majority of participants attending case study 1 meetings also attended workshops for case studies 2 and 3 most of the time, probably because all three were conveniently held in Hokkaido. Therefore, the population of these sessions was quite consistent.

Case study 2 (meetings A & B): Two BSE deliberations with lecture session meetings were held about seven months apart. Stakeholders were newspaper staff, HPG officers, BSE researchers, dairy farmers, veterinarians, high school students (only in A), and people from the case 1 meetings. Twitter was used in B. The objective of both meetings was to discuss a model for a desired best approach. Morning lectures addressed what BSE is, how to control it, and how to manage the risk. In the afternoon, a panel of three people

(in A) took questions from the other participants, followed by breaking the attendees into groups of 10 for discussion with an assigned facilitator. While in B, four experts discussed a scenario “If Japan is free from BSE, what will happen?” in the afternoon. Their comments and ideas were summarized with notes on a wall for everyone to see.

Case study 3 (meetings A & B): Two stakeholder roundtable dialogues were organized one year apart. The objective of A was to provide a variety of experiences on site in authentic locations related to the production, testing, slaughter, and consumption of beef prior to a roundtable dialogue. There was an exchange of opinions on what they saw. In addition to the usual stakeholders, these meetings also included some university students. Thereafter, discussion was held, and participants were divided into three groups to talk about what they understood that day, whether the information should be spread around Japan, and whether these activities were a good way to learn this information. The objective of B was to write a consensus statement among stakeholders, because a new BSE management directive (testing cattle older than 30 months) was installed in July 2013.

Case study 4: The objective was to determine what BSE risk communication meant to everyone. The specifics of the agenda were decided on site by attendees, and we discussed topics about the future of risk communication. This closed multi-stakeholder dialogue meeting was a one-day event held in Tokyo with 12 participants, including people from consumer cooperatives, Kanagawa and Hokkaido prefectural governments, a Kanagawa meat testing company, a slaughterhouse, a national food marketing firm, the All Japan Meat Industry Co-operative Association, a newspaper, and university (researchers). In addition, three people from the Ministry of Education attended as observers.

Results

We learned that the following three points contributed to a reduction in the communication gap: 1) a series of closed small meetings was more successful than a single open event; 2) combining multiple methods was useful for building trust among stakeholders, and 3) dialogue and deliberation promoted the dual-directional nature of information transfer.

We also gradually gained the trust of the HPG. Figure 1

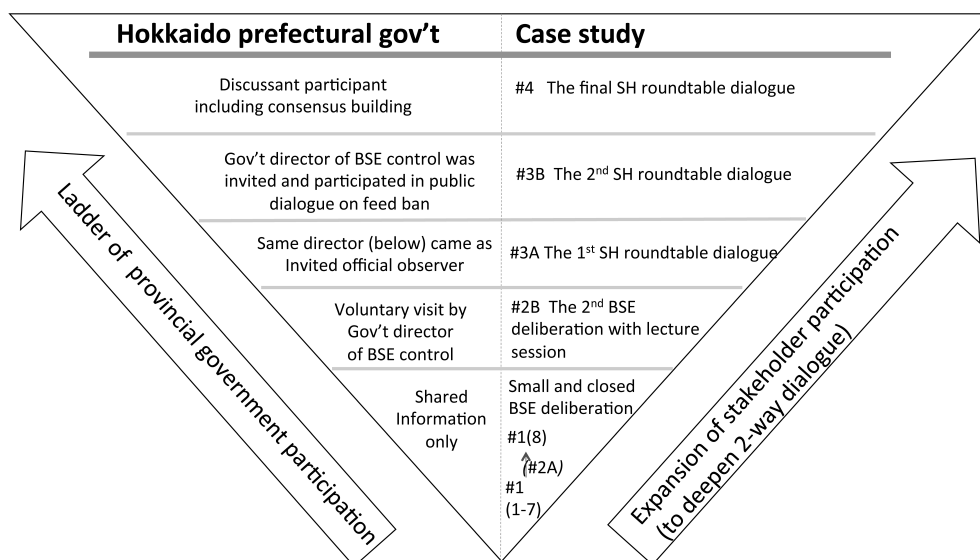


Figure 1. Types of HPG participation in 2010-2015 BSE dialogues. Bottom to top: older to recent case study workshops. Government participation increased with stakeholder (SH) expansion.

illustrates the extent to which various HPG officials attended the workshops and how their active involvement increased over time. More serious participation increased as the case studies progressed from 2010 (merely curious observers) to 2015 (taking part at all levels of discussion). During case study 1, they were there only to provide information. Later, involvement changed from voluntary visits to becoming officially invited participants.

Discussion

Risk analysis involves more than just management; it consists of three components: risk assessment, risk management, and risk communication (Food Safety Basic Act, in Yamaguchi, 2014). Risk communication should be the foundation for risk assessment and management (Yamaguchi, 2014); however, in Japan, risk assessment and management of the BSE problem were not properly coordinated with risk communication (Gray and Ropeik 2002; Lewis and Tyshenko 2009; Ogoshi et al. 2010). Instead, results of risk assessment were released in a knee-jerk fashion to the public in one-way messages only, exacerbating the public's difficulties in understanding the situation and in trusting the government to resolve the problem. A good example of such a response is Japan's BSE surveillance program (Kadohira and Horikita 2009). Despite the national government withdrawing funding for blanket screening of healthy slaughter cattle based on FSC risk assessment, all 47 local (prefectural) governments continued to carry out 100% testing of cattle of all ages for human consumption, at great expense, in the name of satisfying public expectations until 2013 (Kadohira et al. 2011; Yamaguchi 2014). The expectations grew from inadequate risk management measures for BSE and reports of other food safety scandals unrelated to BSE around the same period of time (Tanaka, 2008).

Even when non-governmental experts are involved,

technical information in the risk assessment must be communicated clearly, and that is not always the case (Frewer 2004). A variety of dialogue strategies, especially with casual interactive settings, can alleviate that problem by forcing the experts to get their ideas across without as much fear in a larger formal setting (Arnstein 1969). Scientific sources of information must learn to explain not only to consumers but also with the media (King 2004). Just getting people together to talk, even in small groups with all stakeholders present, isn't enough. To establish a consensus on future actions, trust must be built. Japan is known as a very distrusting nation (Edelman Report, 2016) and risk-averse (Synodinos 2001) nation as a whole. Technical experts rank higher in credibility than academic experts, followed by personal peers. Various types of company staff follow after them, and government officials are found at the bottom of the credibility chain, so public dialogues need to take that into account. Neutral parties might be useful to negotiate or mediate the proceedings in order to ease tensions (Reynolds 2011). Many sources refer to the 1989 definition of risk communication from the National Research Council (NRC): "an interactive process of exchange of information and opinion among individuals, groups and institutions" (NRC 1989, p. 21). The very next sentence qualifies important distinctions of the definition: "It involves multiple messages about the nature of risk and other messages, not strictly about risk, that express concerns, opinions, or reactions to risk messages or to legal and institutional arrangements for risk management". Nearly a decade later, the Codex Alimentarius Commission (CAC) accepted a similar definition of risk communication using more specific identification of the stakeholders: "an interactive exchange of information and opinions concerning risk among risk assessors, risk managers, consumers and other interested parties" (CAC 1997, p. 2). Neither of these actually spells out what the "information" or "messages" of risk actually concern.

Although risk communication research has been around

only since the mid-1980s, the related publications are numerous and diverse and increasing every year (Bostrom 2014; Rohrmann 1992). They include results from many contributing disciplines (e.g., psychology, decision science, sociology, communications) and a wide range of applications such as flood risk (Environment Agency 2015), food hazards (Miles and Frewer 2001; Shepherd 2008; Cope et al. 2010), clinical genetics (Edwards et al. 2008), volcanic crisis (Haynes et al. 2008), environmental and societal health (Hutcheson 1999), and many more. Not only are researchers publishing as individuals, but there are a number of papers and manuals prepared by governmental and international organizations for a better/effective risk communication (e.g., FAO/WHO 1998; Chess et al. 1988; Howell 1987).

One example of the best practice proposed by Cope et al (2010) was formal consultation and dialogue with stakeholders as part of a food risk governance framework. They identified a “need to develop risk communication based on consumer risk perceptions, concerns, information needs, and preferences” (p. 352) instead of mere assessment of technical risks. Determining differences between the opinions of consumers and experts was also deemed vital, especially with regard to how each group considered risk management practices, the role of news media, and handling of risk uncertainties and transparency of communicating food risk analysis. As noted by Hutcheson (1999), “specific techniques and strategies are available to motivate people to take actions, calm people down when they are enraged, and to communicate information that may be difficult to understand”. However, just using those techniques can’t create a two-way communication and those methods are recommended by risk management’s side (government).

Of course, scientific results need to be simplified for laypersons. University scientists are the most trusted sources of information, followed by medical doctors and consumer organizations; government sources and newspapers are the least trusted (Breakwell 2000). Despite this, scientists

do not typically make for the best communicators to the general public. King (2004) advocates for developing a better “skill set and new competence in communication” (p. 187) as well as being proactive in offering assistance to explain information in one’s field. A good example of this is the multi-step dialogue process that was created by research contractors in England to deal with flood risk communication (Environment Agency, 2015). A similar set of protocols were set up to deal with risk communication between government and communities (Chess et al. 1988).

Abelson et al. (2003) reviewed the literature on public participation since 1996 in English and French. They noted deliberations were incorporated into many types of participation processes: citizen juries, planning cells, polling, consensus conferences, and citizen panels. A common element in all of those methods was providing information, discussion on the issue, challenging the information, and thinking about everyone’s views. Public participants apparently welcome the involvement, especially in newer alternate forms of dialogues, become more aware of decision-making complexities, and may even gain respect for decision makers.

A study of 60 risk communication practices about natural hazards was undertaken in 16 European countries by Höppner et al. (2012). One-way communication strongly dominated the practices, largely due to funding and the top-down structure of planning. Only six appeared to be comprehensive and long-term in design. The chief obstacles to two-way communication included socio-political friction, restrictions on influencing decision plans, and lack of enthusiasm by authorities and the public to take part. This contrasts to research that they cited which noted that one-way communication has limited effectiveness in building trust, and that two-way relationships fare much better.

Part of the Food Safety Basic Act described roles and responsibilities of national and local government, food businesses, and consumers so that they would share in

responsibilities. Although the FSC dealt with risk assessment, risk management was assigned to two government ministries: MAFF and Ministry of Health, Labor, and Welfare (MHLW). These actions marked a real beginning of dialogues among government, industries, and consumers with respect to food safety overall; however, assessing the risk of BSE and managing it left out the important element of risk communication.

As mentioned above, many other researchers have employed many of the same techniques as we did to stimulate or improve risk communication related to various types of problems including food-related issues and environmental concerns. As mentioned in the results, three key points became clear to us as important factors in conducting these workshops.

1) A series of closed small meetings were provided, rather than a single event.

We held a series of closed small meetings which included all stakeholders, not just a select group. One benefit of such gatherings was the small size, which lent to a better feeling of closeness among individuals, and the closeness afforded the curious and timid an easier mode to communicate without fear of reprisal, especially when the meetings broke into sub-groups. Abelson et al. (2003) stated that deliberations should be avoided when the situations to be discussed are in “crisis” periods, because people will not have time for careful thinking on the matter at hand. We feel a pre-emptive series of meetings like ours may be time-consuming but justified if conducted before emergency situations arise.

Involving all stakeholders is paramount to efficacious communication. Our small group workshops enabled everyone a chance to hear experiences from others and learn new points of view. News media, for example, might take into account their portrayal of only negative points about the BSE outbreak, and instead serve as an outlet for sharing both sides of the story. Japanese use television and online searches more often than newspapers (Edelman Report 2016), so this

is important when flooded with the same images daily during the BSE outbreak. Japanese also do not trust companies 2:1 over individuals, whether in general or from company press releases (Edelman Report 2017), so working together with industry in these workshops provides an opportunity to share points of view and perhaps dispel negative feelings.

2) Multiple approaches were applied to describe risk communication.

Approaches similar to those from other researchers (Arnstein 1969; Bierele 1999; Bier 2001; Clemens 2003; Fischhoff 2012; Margerum 2002; Rowe and Frewer 2000; Van Dijk et al. 2008) were implemented to experiment with acceptance by stakeholders. A new approach was also introduced to this bidirectional dialogue. For example, visits to research institutes, slaughterhouse, and university farm to see cattle feeds were combined with short lectures from experts. In this way, stakeholders were exposed to more than mere seminar-type presentations or distributed documents. Being able to see such locations firsthand provided authentic information and experiences with necessary facilities that stakeholders normally would only have previously been forced to imagine. With the varied types of workshop encounters, all stakeholders were exposed to data on science issues, policy concerns, effects on farmers, real life treatment of cattle before and during slaughter, and feelings from consumers regarding health fears and economic matters.

3) Dialogue and deliberation promoted the dual-direction nature of information transfer.

Workshop participants were offered many opportunities to address experts and other stakeholders. Seminar presenters had an audience that could respond to slideshows or handouts. While on a company tour, consumers could not only see operations up close, but they could gain more sensory input from their surroundings than in a lecture room, yet they could still raise questions which the others could

hear at the same time. Small group discussions provided more intimate settings that could be considered more amenable to asking questions or voicing one's opinion, compared to any large group listening en masse to a single speaker. The layout of such groups also logistically made it possible for more people to speak at once. In any case, the main point was to focus on conversations, not a one-way flow of information, intended to provoke joint deliberations with a goal (or topic) in mind. Summary reports collected a wealth of information, opinions, and responses, and these were compiled in documents (in Japanese, see Appendix) that were shared with the participants, HPG, and agencies which funded the project.

We did not set up carefully planned strategic goals for the workshops from the onset. Our intention was merely to inform as many stakeholders as possible, and catch the attention of the HPG to the point of convincing them to become active participants after seeing the usefulness of the interactions. Along the way, we conceived of the variety of workshop designs that are described here and tested whatever we felt would interest the HPG and other stakeholders and provide the best overall means to share information. With the help of interested participants from many sectors, we succeeded in holding several meetings/workshops. Eventually these developed trust with the HPG. We feel that was due to three reasons.

1) We helped each other in setting up various workshops together for a long time.

For example, prior to BSE risk communication, Yoshida and Matsui (2007) conducted the Genetic Modified Organisms (GMO) Dialogue Forum Project (Yoshida 2008) to fill a communication gap on that issue among stakeholders in Hokkaido, Japan. They brought scientific knowledge on GMOs to the public via forums and roundtable conferences. The project ended in a stakeholder statement delivered to HPG officials (who did not attend the forum) to recommend conducting pretesting prior to introduction of GMOs. It was

used partially as an official reference to improve the GMO legislation system in Hokkaido.

Based on our previous experience such as the GMO dialogue forum project, the first two authors organized and conducted several public and non-public dialogues on BSE risk communication in Hokkaido and Tokyo, Japan. Four public meetings in Hokkaido, Japan about BSE in 2007 have already been described (Kadohira et al. 2011; Kadohira and Kobayashi 2009), and Kadohira et al. (2011) reported on mail-in survey data from 1,000 Hokkaido participants in 2003-2005 as well. Between 2010 and 2015, they conducted four case studies as described in this paper and managed to share problems from people in Hokkaido who were afraid of BSE risk due to change of management, with the intent of how to determine better BSE risk communication.

2) The HPG became a part of this project.

In order to manage BSE risk communication research projects, we set up steering committees and asked the HPG to join the project as members of the committee. That made it easier for us to share and understand issues and difficulties related to the HPG on BSE risk management.

3) Social and political pressures were relieved.

The BSE issue is a critical one in Hokkaido, even after more than a decade since the first reported case. Despite the central Japanese government declaring that beef was safe, the general public was taking a long time to change their minds. Moreover, the other 46 prefectural governments were waiting for the HPG's decision on stopping blanket testing before they took action. The HPG was facing a critical point and needed trustworthy allies. Our workshops provided an open and honest setting to make those connections, and the HPG responded positively about the assistance we provided with the dialogues. Consequently, armed with the knowledge and opinions of workshop participants, the HPG enlisted in university experts' opinions and technical support and

realized it had to make the decision not to continue blanket testing.

Through these workshop activities and the responses by participants, we learned that all risk communication and risk management manuals that we reviewed were made only for officials of risk management sectors. Therefore, recently preparation for a risk communication handbook has been started for organizers of risk communication meetings, as a complement to those that government officials use. It will be published in paper form or placed on non-governmental organization (NGO) websites or the homepage of one of the authors. In order to provide two-way risk communication, organizers must understand how to work with mediators more effectively as targets of risk communication. In this way, we continue to challenge an existing frame of reference in risk communication and try to modify it to suit the citizens' demand.

Based on all our results, a syllabus has been created and a short post-graduate course has begun testing for training future risk communicators on food-related risk communication. It is an elective workshop in design. This is being conducted at the University of Hokkaido in summer of 2017. Our data from the workshop series will serve to enlighten and educate them on better risk communication practices so that they may take the knowledge with them into the field and continue improving the system.

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7.0 Appendix - Links for Japanese summary reports from the 4 case studies

Workshop 1 (1-8)

Theme: "Looking back, seeing futures"

<http://lab.agr.hokudai.ac.jp/riric/report-furimukeba-mirai.pdf>

Workshop 2A

Theme: "Connecting past and present"

<http://lab.agr.hokudai.ac.jp/riric/02-work.html>

Workshop 2B

Theme: "Making scenarios towards negligible BSE risk"

<http://lab.agr.hokudai.ac.jp/riric/report-BSE-obihiro.pdf>

Workshop 3A

Theme: “Risk communication by checking evidence together”

Workshop 3B

Themes: “No test, no trust?” and “Was the feed ban successful?”

(at the bottom of this site is a link to MS Word file with the report)

Workshop 4

Theme: “Importance of conceiving roadmap”