Politics of Framing in the GM Consensus Conference in Japan: How did the Publics Frame the Issues of GM Crops ?

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1. Introduction

In the Autumn of 2000, the consensus conference on genetically modified crops, GM crops for short, was held by a research institute, the Society for Techno-innovation of Agriculture, Forestry and Fisheries (STAFF), entrusted by the Ministry of Agriculture, Forestry and Fisheries (MAFF). While there were two consensus conferences before it, it was the first case that was held officially by the government.

In this paper, I will focus on the way of *framing* of citizen panelists and how it differed from that of scientific experts who gave answers to "key questions" made by citizen panelists. Traditionally it has been said that Japanese people are not good at discussion and that lay people can't adequately address issues of science and technology which are generally deemed to require highly technical expertise. Planners of the conference also had such a skeptical view of the public. Contrary to this anxiety, however, the result was very well. 18 citizen panelists of the conference produced definitely good outcomes. Among others, their way of *framing* the issues of GM crops was the most illuminative one.

My presentation consists of three sections. In the first section, I will sketch the facts of the conference briefly, then in the second section, I will discuss the characteristics of framing of citizen panelists. Finally in the third section, I will draw some implications from citizen's way of framing that could be useful for designing "public space" for the participatory technology assessment (PTA).

Section 1. Facts of Consensus Conference on GM Crops (CCGMC) in 2000

To begin with, I will introduce the background of the consensus conference on GM crops. It was planned by the Agriculture, Forestry, and Fisheries Research Council (AFFRC), a special agency attached to MAFF. The subject of the conference was the benefits and risks of GMCs, based on the current paradigm of risk analysis.

The conference had two objectives. One was to build *common understanding* between experts and lay citizens about the benefits and risks of GMCs. As you might suppose, the

notion of “common understanding” basically means what scientists regard as “objective knowledge” about GMCs, especially for the natural scientists and administrators in the planners.

Second objective of the conference was to set up new research programs based on citizen panel’s proposals in order to respond to public concerns for/against GMCs. In a word, it was a sort of “research marketing”. While the first purpose remains in the realm of traditional way of thinking of public understanding of science (PUS), the second one goes well beyond that limitation. Traditional way of response of experts and bureaucrats to public anxiety has been exclusively dominated by so-called “deficit model” of PUS, while they had strong confidence in certainty of their knowledge. They believed the reason for public anxiety and opposition to introducing new technology is the lack of knowledge, so that they have tried to transfer their alleged “exact knowledge” to the public, as if there are no uncertainty and unknowns. On the contrary, the planners of consensus conference tried to respond to public concerns by conducting research. This means they admit implicitly or explicitly the existence of uncertainty and unknowns even if they are still confident in objectivity of what they know.

Next, how was the operation and process of the conference? The entire process of the conference was managed by the steering committee consisted of six members. The most outstanding quality of this committee was the constitution of its member. There were two STS researchers. One of them was the chairperson of the committee, Yukio Wakamatsu, a professor of Tokyo Denki University and the president of NPO, the Attentive Japanese Citizens on Science and Technology (AJCOST). The first two consensus conferences on gene therapy and internet were implemented under his initiative. Other members were a biologist, journalist, consumer advisor and administrator at the MAFF.

Furthermore, the facilitator, Tadashi Kobayashi, was also a STS researcher and he is now the first president of Japanese Society for Science and Technology Studies (JSSTS). It was thanks to those three active STS scholars that the performance of the conference, particularly its independence from the influence of its sponsor, that is, MAFF, was kept well enough. Conventionally in Japanese bureaucracy, it is very often the case that the goal of deliberation is fixed from the start and never changes substantially through the deliberation. Therefore, the consensus conference was a big challenge for administrators.

On the other hand, as for the members of citizen panel, there were 479 applicants from all around Japan. They were invited through newspaper advertisements, internet, brochure, and other means. Some of national paper took up the conference in their leading articles. Then, 18 panelists, 9 women and 9 men, were selected in demographically random manner in terms of age, sex and region.

Citizen panelists had 4 meetings in the course of conference, the first and second of which were preparatory and closed ones. At these meetings, panelists had lectures on what the consensus conference is as well as GM technology and safety issues of GM crops from both natural and social scientists. Two of lecturers were again STS researchers and gave insights on

societal issues of GM crops and sociological accounts of risk. After these lectures, at the second meeting, citizen panel made a “Key Questions” about GM crops.

Based on the topics took up in Key Questions, 11 experts were selected and invited by the steering committee. They were invited from various corners of disciplines and expertise, reflecting the wide range of issues the citizen panel were concerned with.

Finally, I should stressed that the operation of the conference was highly successful in terms of its independence and transparency. As I said before, thanks to the contribution of STS researchers, independence of the conference from its sponsor was kept well in the course of meetings. For example, the citizen panel’s final report titled *Opinions and Proposals of Citizen Panel* was completed without any intervention and modification by steering committee as well as sponsors. Although typing documents was done by the secretariats, the documents are displayed on the screen by using LCD projector. By taking this measure, citizen panelists could prevent external intervention at the same time they balance the various and sometimes conflicting opinion within themselves.

On the other hand, as for the transparency, while the first and second meetings were closed ones, the third and forth meetings were open ones, and all the materials used in the experts’ lectures and response to panel’s Key Questions as well as the final report of citizen panel can be freely downloaded as PDF files from the website of STAFF. Additionally, a follow-up report including detail information about conference is also published as a printed document and its English translated version is available on Internet.

Then, what are the outcomes of the consensus conference? At first, as an immediate official response, STAFF submitted a note to relevant ministries, i.e. MAFF and MHW, based on the proposals and opinions of citizen panel. As a result, some new research and investigation programs were set up and have already started, focusing on Long-term Environment & Health Effects, Food Safety (allergenicity, etc), and Monitoring.

The second outcome is the subject of my presentation, that is, the wider range of framing of issues made by citizen panel. The details of it will be given in the next part of presentation, but I want to emphasize here that the width of panelists’ framing went far beyond the scope that was originally set by the planners of the conference. While original framing was confined to risks and benefits of GMCs defined exclusively in terms of biophysical language, the framing of citizen panel covered wider socio-political and ethical dimension of using GMCs in real societal settings.

The third outcome is that citizen panelists deeply appreciated the social scientific way of understanding science and technology. This point is closely related to the second outcome, so I will give details in the next section.

2. Characteristics of Framing of Citizen Panel

Now I want to move to the second section to discuss the characteristics of framing of citizen Panel.

As I told just before, the most outstanding feature of citizens' framing was its width, or comprehensiveness. It is reflected in the list of topics of Key Questions of citizen panel. It covered from biophysical aspects of GM crops, for example, what is GM technology, what are their risks to human health and environment, to diverse societal issues. For example, the topics of "Institutional, Political & Ethical Issues" includes the responsibility, liability, and trustworthiness of government, corporations and experts communities, as well as validity of current regulatory regime concerning risk assessment and management of GMCs. The topics of "International Affairs" refers to possibility of domination of world agriculture by multinational companies, the validity of neo-liberal globalization of free trade of agro-food products, the impacts of GM crops on developing countries, problems of intellectual property rights (IPRs) and so on.

Taking a closer look, we can find further characteristics of citizens' framing. Here I pick out three points.

The first point is that the foremost issue for citizen panelists was the meaning of importing and using GM crops for Japanese agriculture. Panelists asked, for example, whether the import and/or use of GMCs could contribute to increasing the rate of Japanese food self-sufficiency that is currently only 40%. Likewise in the second conference on GM crops held in 2001 by STAFF, farmers in citizen panel argued whether using GM crops could increase the competitiveness of their product in domestic market against imported products from USA. At both conferences, people were very eager to argue this topic more squarely. However, owing to time constraint and the very framing of the planners of conferences that was obviously much narrower than panelists' one, this aspiration was not fulfilled satisfactorily. One of solid consensus of panelists in both conferences was that the conference dealing with Japanese agriculture as a subject should be held in future.

The second point to be made is that citizen panelists favored the social scientific view of science and technology issues. For example, They concluded their report as follows (I quote):

> …. We recognize that it is necessary for us to acquire the social scientific way of thinking about the risks and benefits … in order to realized dialogue among government, corporations and publics. While we have learned at this conference that the tools for consensus making of society could be provided by social sciences, it seems that this recognition is not shared among wider public. The government should not only disclose and disseminate the information but also promote social scientific analyses of science and technology….(the end of quote)

In this context, "social scientific analyses of science and technology" refers to STS and Agro-economics. According to facilitator Prof. Kobayashi and some of members of citizen panel, what was the most illuminative for panelists in this conference were talks of social scientists. When I talked with a middle-age woman after the closing of the 4th meeting, she said that while she had thought that the risk assessment was exclusively natural scientific and

technological matter, it was very happy to learn social scientific approaches to the issue. In this sense, the conference provided with a good opportunity for public understanding of "social" science as well as PUS (or PUST).

By the way, what is the social scientific view here? How does it differ from natural scientific one? Here we can single out an epistemological difference. In fact, there was a sharp disagreement between natural and social scientists who answered to the citizen's key questions at the 3rd meeting. It was so-called "boundary work" with respect to what was the appropriate way of framing of the risks and benefits of GMCs. Point of dispute was whether the socio-economic conditions and the ways of using GMCs in a contemporary world agro-food system should be counted as the causes to pose risks. Natural scientists' answer is definitely "No". For instance, they claimed that risks such as socio-economic and ecological damages happened in the Green Revolution are exclusively due to the socio-economic condition of developing countries and farming methods such as monoculture, so that we should separate *GMCs as such* from its societal circumstance and the way of using them. On the contrary, social scientists, one is a STS researcher and the other is an agro-economist, argued that the evaluation should be situated in the context of the agro-food system which is characterized by monoculture, excess industrization and commodification of agriculture, unfair trade of foods between the south and the north, enormous influence of supernational agribusiness giants, whatsoever. In other words, they problematized the very notion of "GMCs as such". For them, the societal context and the way of using of GM technology is essentially a part of "GMCs as such" unless we change the current agro-food system where GMCs are developed, sold and utilized. For the citizen panelists' eyes, this social scientists' view is much more persuasive and realistic than natural scientists' one.

The last point I want to talk about is that citizens' concerns for the risk of GMCs couldn't be characterized in terms of current paradigm of "risk analysis", left alone "zero risk". First of all, as mentioned before, framing of citizen panelists encompasses the various social risks that is dropped out of the current regime of risk analysis, especially that of so-called *sound science* approach that is a favorite of scientists. Secondly, citizen panelists are very much aware of fundamental uncertainty or *ignorance* which Brian Wynne called "unknown unknown", human fallibility, unpredictability and uncontrollability of Nature, irreversibility of adverse effects, and so on. For their eyes, scientists who declare the safety of GM crops looks very arrogant and untrustworthy. In fact, one of the panelists said in a follow-up interview, "I wonder why scientists have such strong confidence. They don't know that ordinary people know science is not omnipotent. Attending the conference, I found they live in a narrow world". In addition, as for the "zero risk" for which scientists often condemn lay public, the reality is that people call not for zero risk but for more prudence, responsibility and accountability of experts and policymakers. This reality of people proved in various sociological studies of PUS in European contexts was also found in the consensus conference in Japan. The final report of the panel says, "We are most afraid that we can't undo adverse

effects when it happens". This fear for irreversibility of what happened can't be explained in terms of the notion of "irrational aspiration for zero risk".

3. Conclusion: Implication for Designing PTA

Now it's time to conclude my paper. In conclusion, I would like to point out three implications for designing "public space" or "forum" for PTA like consensus conference.

At first, we can conclude from the observation of consensus conferences in Japan that the more citizens participate in the forum, the more extensive, multiple and comprehensive framing can be obtained, and *vice versa*. A possible reason for this tendency is that citizens, or the public, consist of diverse people who have different opinions, different values, different experiences, different knowledge and so on in their lives. In some cases, they have a certain scientific expertise that is different from that of technology in question in TA. This heterogeneity of the public and diversity of their backgrounds could promote the multiplication and resultant extension of framing. On the other hand, a wider range of framing could allow more diverse people to participate even if they don't have any technical expertise. In other words, it is confinement of range of framing to technical aspects of the technology that excludes the public from the forum of TA.

As a result of this nature of public participation, the foremost role of the public in TA is defined as multiplication, extension, synthesis of framing by diverse input of concerns, interests, values and knowledge, whatsoever. This is the second implication drawn from the experience of consensus conference.

Lastly, what is the primary function of the public space for TA? Although there are basically two inseparable functions; one is consensus/decision making and the other is *dissensus making*, the second function should be emphasized for the design of public space of PTA. Namely, to enhance the "cognitive pluralism" should be the foremost function of public space. On the contrary, if the public space is designed as the place where people are only to discuss the issues framed by experts, there are little room for the public to make active contributions, being suppressed by such fixed narrow framing of experts.

At the same time the public space for PTA should be a place where people are more sensitive to uncertainty including ignorance. Here the ignorance is not that of ordinary people but ignorance of science, or humanity as a whole. The public space for PTA foremost should be a forum where latent disagreements among participants as well as uncertainty could be explicit and led to raising new issues to be discussed. The very existence of disagreements and uncertainty is *raison de être*, fundamental rationale, for public space.