Downplaying Disaster

Informational Uncertainty in the Wake of Japan's Nuclear Crisis

By GREGORY BUTTON

"In a disaster of this magnitude timely and accurate information is of utmost importance." Jim Ricco, nuclear expert. [1]

In recent days the Japanese government and Tokyo Electric Power have come under increasing criticism for their handling of the nuclear crisis at the Fukushima Daiichi nuclear plant. Officials from both parties are under suspicion of withholding or manipulating vital information about the tragedy. After several days of incomplete and contradictory information, international nuclear experts, the international press, even the Japanese press along with some diplomatic officials have lashed out at both parties for their failure to provide sufficient information. [2] In turn, Japan's prime minister, no doubt in an attempt to point the finger in another direction, attacked the power company for not informing his government about explosions at the plant that occurred earlier last week. Yurika Ayukawa, a Chiba University professor of the environment explained, "there is no transparency about the information they are saying."[3] Uncertainty and cynical speculation about authorities' motives have become of central concern to many at home and abroad.

Recently, Gregory Jaczko, the chairman of the United States Nuclear Regulatory Commission, dispelled any doubts that there were grave inconsistencies in the way in which the Japanese government was representing the seriousness of the event when he gave a grimmer appraisal posed by the threat than that of the Japanese government. On the heels of this searing criticism came the news that levels of radiation exceeding government standards of safety had been detected in spinach and milk ninety miles from the Fukushima plant.

Eight days after the nuclear emergency began a senior official in the Japanese government stated that government officials should have admitted the severity of the crisis much earlier. [4] Whether this admission will change the government's ongoing response remains to be seen. Even if there is a serious sea change in the government's crisis communication policies such a maneuver can hardly undo all the unnecessary harm that has been inflicted by the information distortion to date. If the historical record of the behavior of officials in previous disasters is any indicator, the odds are this mea culpa may not prove to be long-lived.

Governments and corporations often downplay a disaster and provide the public with overly optimistic accounts of the severity of an event. In order to avoid public scrutiny and to safe guard corporate interests (in this case the nuclear power industry) governments often withhold vital information not only from its citizens but also from outside experts and the international community.

In the days, weeks and even months that follows in the wake of a disaster people feel uncertain about real and perceived risks. Information about the nature and the extent of these risks is incomplete and typically conflicting. The parties involved in the disaster, as well as the media, public agencies, and non-profits release a cacophony of communications that the afflicted population and the general public often sees as conflicting and confusing.

This sense of confusion is accentuated when, as in the present nuclear crisis in Japan, knowledge is withheld and uncertainty is amplified. In such instances both disaster victims and outside experts have to struggle to obtain credible sources of information. A common phrase that is often heard in such circumstances and has been re-iterated in the current nuclear nightmare, is "It is hard to know who to believe." For those living in close proximity to the affected area, the availability of reliable information about potential threats is critical in order for people to make accurate appraisals of how to respond to environmental threats.

The kind of informational uncertainty that has abounded in Japan in recent days generates public discourse about not only who is to blame for perceived threats and actual harm, but also who is responsible for an effective and timely remediation. It also raises questions about the severity of the event and the potential long-term harm that may ensue particularly in the case of the current crisis. Moreover, the informational vacuum that exists in the wake of a disaster, let alone a major catastrophe, can produce harmful rumors and misinformation that can obstruct a timely response. One of the major negative effects of this uncertainty and confusion is that it can seriously impede an effective and timely response to a disaster. In short, critical hours and even days can be lost in the resulting misinformation and confusion.

Science and technology are often involved in disasters especially technological ones like the one unfolding at the Fukushima nuclear reactors in Japan. Citizens commonly turn instinctively to scientists for answers, as do politicians and corporations. While the media seeks immediate answers to meet daily deadlines and the public demands instant answers, science by virtue of its methodologically rigorous approach cannot readily respond to these demands. Science can be a slow and painstaking process that often cannot produce the sound bites the media craves or the reassurances and insights the public demands. The situation is worsened when information is withheld not only from the media and the public but from the larger scientific community as well. The present crisis in Japan is unfortunately a supreme example of this type of obfuscation.

Usually such a vortex of conflicting information and lack of transparency generates a climate of controversy among scientists and the lay public. Lay people in particular are often confused by the ambiguous or contradictory statements made by some experts and puzzled about how to make sense of the ambiguities. In the present instance the media and outside experts are just as puzzled.

In this vortex of uncertainty and lack of knowledge people can become skeptical about the reliability of scientific evidence. Some suddenly see science as lacking in certainty and incapable of resolving ambiguity. In the process, science's systematic

invincibility is called into question and its monopoly on truth is challenged. Unfortunately, when officials behave as they have in the wake of this disaster, their behavior undermines the public's faith in the virtues of science.

At times, science and engineering are seen as being the cause of the disasters such as in the case of the nuclear accident at Three Mile Island or the catastrophic meltdown in Chernobyl, or the chemical explosion in Bhopal. As a result, some individuals view science as too narrowly focused to undertake a holistic approach to solve their dilemmas or adequately address the ontological challenges that they face.

In the early days of the crisis the Japanese government reassured their nation that they were in no danger of experiencing a major nuclear disasters and downplayed any health or environmental risks. The Tokyo Electric Power issued opaque statements, which described the ongoing events in extremely sparse, technical language totally de-contextualized from the everyday lives of the citizens whose lives have been placed at risk.

These early statements by both the government and the power company failed to disclose the true nature of the situation. Their reports were conflicting and ambiguous to the Japanese public, the media, and international nuclear experts. In fact, according to at east one report, nuclear experts have doubted the accuracy of the official information that has been issued throughout the crisis. [4] The credibility of the government's statements has also been undermined by reports that they had previously downplayed and covered up previous, less serious, nuclear events.

The Guardian reported WikiLeaks released a diplomatic cable in which "a high profile" Japanese politician told US diplomats that the Japanese governments ministry responsible for nuclear power has been "covering up nuclear accidents and obscuring the true coasts and problems associated with the nuclear industry."[6]

Examples of what have been termed "hidden episodes" include incidents reported in the New York Times. According to the

Times, a fire and small amount of radiation leaked at a nuclear plant located in Kashiwazaki City. Reportedly, Tokyo Electric Power built the world's largest nuclear power plant, however unknowingly, on an active seismic fault according to an investigative report that came out in the wake of an accident. [7]

Paul Dorfman, a member of a now defunct UK advisory committee, expressed concern when he declared, "we are seeing a clear pattern of secrecy and denial" in commenting on the present crisis. According to Dorfman, "There is a profound uncertainty about the impact of the disaster. [8]

Aileen Mioko Smith, who once lived near Three Mile Island and is now a member of a member of an environmental organization in Tokyo underscored these statements by saying, "People aren't getting the information they need."[9]

Similar concerns were echoed by Kenneth Bergeron, a physicist and former

Sandia Scientist, that industry assurances stressing that the situation was under control flew in the face of the fact that, "we don't know what is going on." [10]

All of which suggests that the optimistic appraisals by the government were not based so much on fact as a pubic relations campaign (and no doubt a certain degree of confusion) to downplay uncertainty and reassure the public and the international community.

In a press conference sponsored by several groups, Robert Alverz, who served at one time as a Senior Policy Advisor to the U.S. Department of Energy and a deputy Assistant secretary for National Security and the Environment, galvanized Bergeron's claim by saying, "There is a lot we don't know." In another words what these men are saying is that there isn't sufficient scientific evidence to support the downplaying of potential harm. [11]

Representative of the uncertainty and confusion surrounding the crisis is one of the updates issued Tokyo Electric Power: "Unclear if radiation was released;" terse statements such as this fail to

disclose much useful information. Moreover, when speaking of potential health threats little has been said about all important topics like ignoring the health risks to low level exposure, exposure rates and cumulative risk. In short, the nuances of public health risks are glossed over and given a fuzzy presentation that fails to fully inform those especially at risk.

Indeed, thus far there have been conflicting and contradictory reports issued by the government, the power company and others making it extremely difficult to accurately assess the exact threat of radiation releases let alone what ever else may have been happening at the Fukushima Daiichi plant. Questions have been raised about the water levels in the various cooling chambers as well as questions about whether there has been damage to the containment vessels or if so, how much. Questions have also been raised about the source of some radioactive releases, the amounts of the releases, and of late, whether one of the reactors sustained structural damage prior to the present crisis during the catastrophic earthquake. These and many other questions remain unsolved in the minds of both experts and citizens alike.

Lack of transparency and the downplaying of events and the ensuing uncertainty is not only a legacy of previous disasters (e.g. Love Canal, the TVA ash spill, the BP Gulf oil spill and countless others) but the world's two nuclear disasters. Industry authorities downplayed the partial meltdown at Three Mile Island (TMI/1979) much to the chagrin of many Pennsylvania residents and their governor. Governor Thornburgh and his staff were frustrated in their attempts to reliable information from Metropolitan Edison, which tended to smooth over inconsistencies over the facts surrounding the accident. Evaluations in the wake of the event found that despite an abundance of uncertainties, the utility company adopted a public relations strategy that tended to over look the uncertainties and create more of an air of certainty.

The degree of uncertainty that existed is best characterized by a statement made by the NRC chairman, Joseph Henrie, "We are operating almost totally in the blind…its like a couple of blind men staggering around trying to make decisions. [12] Although,

we must be careful to acknowledge the over-all specificities of each case are vastly different in some ways the ambiguity of the situation surrounding TMI bares an uncanny relation to the present situation in Japan and to a lesser degree to Chernobyl.

While there was also a withholding of information and a considerable uncertainty surrounding the terrible tragedy in Chernobyl there are some extreme differences.

Most notably, in direct contrast to both TMI and recent events in Japan, the Soviet Union did not acknowledge the world's worst nuclear accident until almost three days after a series of explosions destroyed one of the reactors in Chernobyl. Nor did they evacuate the nearby town residents until almost a full day after the accident. Their acknowledgement of the catastrophe only came as the result of a radioactive plume triggered alarms at a nuclear reactor in Sweden three days after the initial explosion.

While the U.S. government was extremely critical of the Soviet Union's lack of transparency, the U.S. government itself tried to obstruct the access of information about the world's worst nuclear disaster by attempting to withhold information that might be deemed harmful to the U.S. nuclear industry. For example, both the U.S. Department of Energy and the Nuclear Regulatory Commission imposed a gag order on their employees and contractors as well as scientists at national labs. In an attempt to limit public information and avoid any comparison between Soviet Nuclear power plants and U.S. reactors, strict instructions were issued to the above personnel to avoid press inquiries about Chernobyl or to provide only simple background information. [13] To some observers this response came as no surprise given the U.S. government's decades long downplaying of the radioactive legacies of the cold war (14].

In the wake of a disaster, governments and corporations can play a decisive role in framing the event and creating an "official" narrative. How such efforts interpret, shape and dispense knowledge and sometimes produce additional uncertainty is crucial. The ways in which knowledge is produced, or withheld, in an atmosphere of pervasive ambiguity is critical to how, and to

what degree, a disaster ultimately affects both people and the environment. No matter what the nature of the institutional motive to downplay such threats the primary effect is the same: it not only denies those who are disproportionately affected by the disaster the ability to accurately appraise the threats and adopt the effective coping strategies it also seriously thwarts the ability to arrest the threats and successfully remedy the problem. In the case of the present day nuclear crisis in Japan the stakes couldn't be higher.

It is absolutely imperative that Japanese officials become more transparent in their crisis communication. It is equally imperative, as this present crisis makes clear, that officials around the world realize the severe harm that can be inflicted by the obfuscation and distortion of critical information in the wake of catastrophe.

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