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"Exposure to Low-Dose Radiation: We Need Social Discussion for Risk Judgment"

At the end of last year, the expert panel established by the Cabinet Office submitted a report on the effects of low-level and chronic radiation exposure. It is a Herculean task to tackle the difficulty challenge of risk management within such a short period. Risk management regarding the type of radiation exposure at issue, however, is not a matter of pure science to be left solely with scientific experts. It is essential for each of us to judge the degree of its danger and work out social consensus as to solutions.

Our past experience offers a lesson worth noting. In March 1954, the U.S. hydrogen bomb test showered an enormous amount of deadly fallout on a Japanese tuna fishing boat. The specter of "radioactive tuna" terrified consumers, and reports of cesium and strontium in brown rice and vegetables continued. As public opinion against nuclear tests was boiling, the U.S. government claimed that health damage from them was negligible and asked the scientific committee established by the United Nations to investigate this problem.

Accurate estimates of the health damage caused by low-level radiation exposure, however, proved extremely difficult. A fierce debate inevitably broke out over the validity of the findings, and people began to feel even more insecure. The claim that the damage from pollution was small also turned out to be relative in comparison to the security value of nuclear weapons, the scale of X-rays, natural background and other radiation hazards, and such commonly accepted dangers as smoking cigarettes or driving a car. In reality, however, the world was deeply divided over the merits of nuclear armaments. Moreover, the essential character of fallout hazards differed from our everyday risks in that we could neither avoid the danger of fallout nor expect due compensation for it. As a result, all prerequisites for comparative analysis quickly eroded in the case of radioactive contamination. In August 1958, the United Nations Scientific Committee reported its conclusion that there was no reason to tolerate the risks of radioactive fallout from nuclear tests. In the end, the U.S. government's claim lost its ground.

Our society has a wide diversity of values. It is simply impossible to seek a universal answer as to how much radiation dose is acceptable to all stakeholders. Even if those in charge of risk management unilaterally determine the "acceptable" dose, it will be meaningless unless people at risk accept such decision. It will rather saw a seed of distrust and make risk management even more difficult.

Our next task is to listen to the voices of people at risk through regular field visits and social media such as Internet, and to explore a point of social consensus as to the risks associated with nuclear power.