

SOCIAL SURVEYS ON THE JAPANESE PERCEPTION OF RISKS IN ENERGY RELATED ACTIVITIES (2): JAPANESE CITIZENS' RECOGNITION PATTERNS ON RISKS AND BENEFITS

NAGANO Koji ¹, SUZUKI Yohei ², TSUCHIDA Shoji ³, ITOH Masahiro ⁴, ANDO Kyoko ⁵, HIRANO Hiroshi ⁶, MAENO Hiromu ⁷ and KONNO Hiroyuki ⁸

¹ Central Research Institute of Electric Power Industry (CRIEPI), 1-6-1 Ohtemachi, Chiyoda-ku, Tokyo 100-8126 JAPAN.

² Nuclear Safety Research Association (NSRA), 5-18-7 Shimbashi, Minato-ku, Tokyo 105-0004 JAPAN.

³ Dept. Psychology, Kansai University, 3-3-35 Yamate-cho, Suita-shi, Osaka 564-8680 JAPAN.

⁴ Faculty of Letters, Kansai University, 3-3-35 Yamate-cho, Suita-shi, Osaka 564-8680 JAPAN

⁵ Applied Ethics Center for Engineering and Science, Kanazawa Institute of Technology, 6-8-7 Akasaka, Minato-ku, Tokyo 107-0052 JAPAN

⁶ Faculty of Law, Gakushuin University, 1-5-1 Mejiro, Toshima-ku, Tokyo 171-8588 JAPAN

⁷ Faculty of Social Information, Otsuma Women's University, 2-7-1 Karakida, Tama-shi, Tokyo 206-8540 JAPAN

⁸ Faculty of Human and Social Sciences, Mejiro University, 4-31-1 Naka-Ochiai, Shinjuku-ku, Tokyo 161-8539 JAPAN

Based on the social survey undertaken to the metropolitan (Tokyo and Kansai) areas as well as medium- to small-sized municipalities (with lower than 200,000 inhabitants) all over Japan presented in Tsuchida et al. (2004), this paper specifically looks at the recognition patterns on nuclear and other power generation technologies, with emphasis on their age and gender distribution. The responses given to the questionnaire suggested the following implications:

- While nuclear power is well recognized as the largest source of power in Japan, its negative images such as 'radiation', 'accidents' and 'dangerous' are prominent in all the age segments. Among all, teenagers

show vividly negative recognition towards nuclear power. Benefits from nuclear power, meanwhile, are widely recognized, next to 'automobiles' and close to 'X-ray diagnosis' in the survey. Although nuclear power is the most economical source of power in Japan, about half of the respondents think it the most costly while wind power is believed as the cheapest.

- Geological disposal of high level radioactive waste (HLW, hereafter), highly radioactive residues from reprocessing of spent nuclear fuels, are recognized even more hazardous than nuclear power generation plants, not in conjunction with accidents but 'radiation' and 'environmental degradation', in other words by its nature of being remote, invisible and/or unknown. This causes substantially more serious anxiety and sense of hazard about them than 'industrial waste repositories', 'nuclear power plants' or 'food additives'. While general consensus is shared by the majority that beneficiaries should owe responsibility to manage and dispose of HLW, it is not clear if the respondents identify themselves for the role.

- Sense of efficacy of citizens' opinions to national energy policy formulation is recognized quite low, especially in rural areas. This is reflected by the sense of difficulty to understand energy problems in general, with female and teenagers who complained more. The respondents also showed dissatisfaction with the degree of information dissemination on various risk affairs, such as 'medical accidents', 'HLW', 'genetically modified food products', 'BSE' and 'accidents in nuclear power plants'.

- About 60% of the respondents think positively that science and technology will lead the whole humankind better off into the future, while some pessimism or indifference is found among teenagers in metropolitan areas. Coexistence of artificial products such as chemicals closer to the daily lives is rather taken as normal by majority of the respondents. It is true that these tendencies give a relieving idea that advancements of science and technologies, such as nuclear power generation, may still be well received in the society. We should, however, pay serious attentions to the fact that distrust, resulted from inefficacy and indifference, of energy policy formulation and enforcement are widely shared by the whole population, which may hinder healthy

development and implementation of such technologies.

Reference: Tsuchida, S. et al. (2004) "Social Surveys on the Japanese Perception of Risks in Energy Related Activities (1): Metropolitan-Area-Survey, Rural-Area-Survey, and Students-Survey," International Joint Conference 'Risk Assessment and Management', Seoul.