Center for Computational Science and e-Systems



Development of radioactive databases and contamination map system

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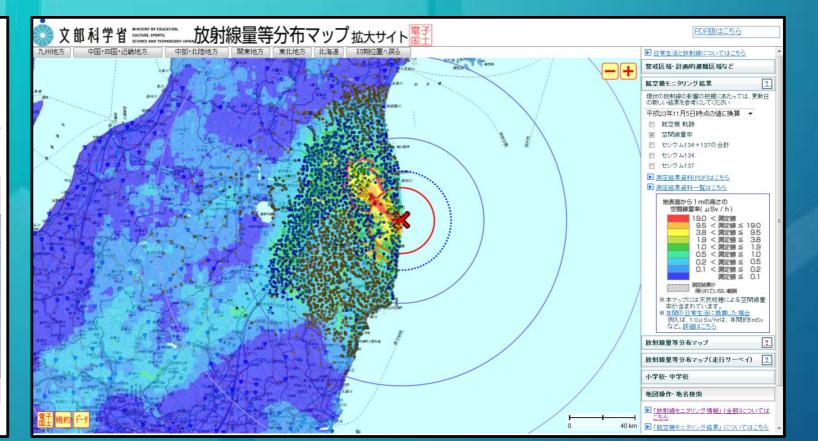
Introduction

In order to estimate the impact of the nuclear accident of Fukushima Dai-ichi nuclear power plant and take appropriate countermeasures for it, it is necessary to obtain precise data on the contamination conditions. Ministry of education, culture, sports, science and technology (MEXT) and Japan Atomic Energy Agency (JAEA) prepared radioactive databases and contamination map for the accident are described.

Results

The database system is designed to provide quantitative data for detailed analysis, while the map system to provide intuitive images for the qualitative estimation. They contain measured data such as air dose rates by using radiation counters at around 2,200 locations within approximately 100km from the plant, and radionuclide concentration measured by sampling soils from the 5 cm surface layer at around five points at each location. The vehicle-borne survey results, mainly on national and prefectural roads in these areas, are also included for the purpose of ascertaining the distribution of radioactive substances around roads in detail. The number of survey data is amounted to about 150,000 for the first investigation conducted in June, and 700,000 for the second investigation in December 2011. The systems are open to the public at the site of JAEA.





The contamination database site

The contamination map site

http://radb.jaea.go.jp

http://ramap.jaea.go.jp

JAEA

Conclusions

Both systems have been developed to provide information to identify the current distribution of released materials and to support decontamination planning. We will continue to upload new investigated data quickly and accurately.



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