

## Environmental Monitoring of Soil contaminated by Radiocaesium in Iitate Village using FMS developed in GRENE project

MIZOGUCHI, Masaru<sup>1\*</sup>

<sup>1</sup>Graduate School of Agricultural and Life Sciences, The University of Tokyo

Most of radiocaesium released from Fukushima Daiichi nuclear power plant has been accumulated in the topsoil within 5 cm. For decontamination of the top soil, Japanese government (Ministry of Agriculture, Forestry and Fisheries) has authorized three methods: topsoil stripping method, puddling method, and plowing method to replace surface soil with subsoil. Among three methods, the topsoil stripping method is being carried out and a lot of flexible container bags containing contaminated topsoil are piled up in the paddy field. We have not yet found the final disposal site of the contaminated soil. For agricultural regeneration and early return village, it is urgent and important to find a feasible decontamination method that farmers can conduct by themselves. Therefore, we are challenging a field test that buried the contaminated soil in the ground by a combination of the topsoil stripping method and the plowing method in Iitate Village in Fukushima Prefecture. We named this method "Madei-method" that means we treat contaminated soil carefully. Currently, we are monitoring the radiation level from the buried contaminated soil by using a soil radiation sensor combined to the Field Monitoring System (FMS) that we developed for agricultural use in GRENE project. At the moment, leakage of radiocaesium has not been confirmed from the buried contaminated soil despite rapid changes in ground water due to rainfall and irrigation to the paddy. In the presentation, I explain outline of the FMS we developed in GRENE project and would like to propose to build a useful soil radiation database in Fukushima as one of important global data.

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