Landscape Controls Fate and Transport of Radionulides in Fukushima

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The Fukushima Daiichi Nuclear Power Plant accident has released massive amount of radiocesium into the terrestrial environment, and the radiocecium have been moved through rainfall and erosional processes. Especially, radiocesium (Cs-137) transfer and flux through river network is important to understand the redistribution of radiocesium in terrestrial environment, which is essential for assessing the external and internal radiological doses.

In Japan, intensive field montoring campaign has been started including mapping project starting immediately after the Fukushima NPP accident[1]. Thr project continues for 4 years, funded by Japanese government. In this presentation, I will present the summary of environmental transfer studies after the Fukushima NPP accident The processes includes forest canopy to ground soil and aquifers, transfer to river and marine.

The detailed monitoring of concentration of radiocesium and their flux, which can be applicable for the fate and flux of the radionuclide transfer in humid temperate environment. We also found that landscape controls most of the fate and transport of Cs-137.

[1] Saito, K., Onda, Y. (2015) *Journal of Environmental Radioactivity*. **139**, 240-249.