

Topics Fukushima introduces JAEA's activities related to Fukushima.

## **Survey of radioactive cesium concentration in seafloor sediments**

As part of its efforts to ascertain the radiation situation in the environment, JAEA has conducted a survey for one and a half years on the northern coast of Ibaraki Prefecture regarding the deposition situation and behavior in seafloor sediments of radioactive cesium deriving from the accident at the TEPCO's Fukushima Daiichi Nuclear Power Station.

This survey has been conducted independently by JAEA. In the survey, nine fixed points were established, at water depths ranging from 26 m to 95 m, on the northern coast of Ibaraki Prefecture, and sediment samples were collected five times from June 2011 to August 2012. In addition radioactive cesium concentration was analyzed by sediment depth, particle size and physical/chemical state.

The results showed that the accumulated amount of radioactive cesium contained in sediments in the range from the seafloor surface to a depth of 10 cm was greater at points with a shallow water depth than points with a greater water depth, and there were no marked changes in that amount subsequent to August 2011. While radioactive cesium concentration in the sediment upper layer (**0-3 cm**) exhibited a gradual decreasing trend overall, temporary fluctuation was seen at some observation points in shallow waters.

It is conjectured that this occurred because minute sediments to which radioactive cesium was adsorbed moved together with the flow of seawater near the seafloor, and then temporarily settled on the surface of the sediments, resulting in the local fluctuations in concentration.