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CHARACTERISATION OF RADIOCESIUM IN SEDIMENT OF THE SENDAI BAY OFF THE ABUKUMA RIVER DELTA

YAMASHIKI, Yosuke[1*] ; PRATAMA, Mochamad adhiraga[2] ; YAMAZAKI, Hideo[3] ; ISHIDA, Masanobu[3] ; NIWA, Yoshihiro[4]

[1]GSAIS Kyoto University, [2]GSE Kyoto University, [3]Kinki University, [4]GSS The University of Tokyo

Seasonal variation of radiocaesium concentration in the bottom sediment near Abukuma River mouth were observed in order to verify the potential impact of high radiocaesium flux from Abukuma River into the Pacific Ocean. Based on the hydrodynamic parameter obtained in the bay, complex estuary circulation were affecting contaminated suspended material along the shoreline, indicating that contaminated bottom sediment are always in the motion both affected by the river flow and estuary circulation. According to the numerical estimation of radiocaesium flux from Abukuma river basin, it was indicated that the highest concentration of bottom sediment may occur just after the heavy rainy season, whereas during dry season concentration of the bottom sediment might be reduced. Our seasonal observation showed that highest concentrations were observed in September, when the precipitation and thus total road from Abukuma river basin was highest in 2013, where observation in the dry season showed lower concentration of radiocaesium. It was first observed proof which, bottom sediment contamination is affected directly by the seasonal changes of radiocaesium flux of inflowing river basin affected direct fallout from FDNPP.

Keywords: Abukuma River, Radiocaesium, Bottom Sediment