History of mercury contamination associated with Artisanal Small-scale Gold Mining activity observed in Lake Tilap Indonesia

*Osamu Nagafuchi¹, Hazumu Kinoshita², Koyomi Nakazawa¹, Tomonori Kawakami³, Takanobu Inoue⁴, Rosana Elvince⁵

¹. Fukuoka Institute of Technology, 2. Nippon Instruments, 3. Toyama Prefectural University, 4. Toyohashi University of Technology, 5. Palankaraya University

Mercury is released to the environment from various processes associated with Artisanal Small-scale Gold Mining (ASGM) activity. In this presentation we focused on the Lake sediment core to clarify the mercury pollution history near ASGM site. Lake Tilap is located near Petuk Bukit Village, in the Rakumpit sub district of Central Kalimantan. The lake is one of the important fisheries for the local people. On the other hand, people in this area do a lot of small scale gold mining using gold-amalgam method in upper endorheic basin of Rungan River. Therefore, mercury contamination and increasing of human or ecological risks has been a lot of concern, who live in this area in these days. In order to conserve ecosystem and reduce human health risk from the mercury pollution, it is important to learn the history of its pollution in this area.

Keywords: Mercury, Artisanal Small-scale Gold Mining Activity