Re-estimation of damages in the Miyako District Okinawa by 1771 Great Meiwa Tsunami

*Takeshi Matsumoto¹

1. Faculty of Science, University of the Ryukyus

Precise description of damages by devastating 1771 Great Meiwa Tsunami (Yaeyama Earthquake Tsunami) is recorded in "Kyuyo", the chronicle of the Ryukyu Dynasty and "Otoiai-gaki", local manuscript in Miyako district. Run-up heights at several villages in Miyako District recorded in this manuscript were compared with the result of the recent Tsunami Height Assessment in Okinawa Prefecture (released in 2015). Most of the recorded run-up heights were smaller than the recent assessment assumed by 8m slip of the three major faults along the southwestern Ryukyu Trench off Yaeyama and Miyako districts. The difference may cause the difference in slip rate along the faults and the slip rate might be smaller off Miyako than that off Yaeyama. Another possibility may be that a rupture along the fault plane was generated off Yaeyama and propagated towards Miyako where it terminated.

Keywords: Great Meiwa Tsunami, run-up height, Miyako District