

Mechanism of the generation of the tsunami of the 1998 Aitape Earthquake, Papua New Guinea

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More than 2,000 people were killed by the tsunami of the 1998 Aitape Earthquake, Papua New Guinea. Eyewitnesses accounts show that the first wave arrival time is later than that of theoretically expected one. And moreover tsunami magnitude is too large for the magnitude of the main shock (M7.1). So, it is suggested that the tsunami was caused by submarine slumping(s) of sediment layer on sea bottom slope(s). In the present study, numerical calculation of the motion of a visco-plastic sediment layer on a slope was made by applying the finite element method. It is clarified that the motion will take place drastically in a short period after a relatively long elapse of time.