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Press Release on March 1, 2023 ITbook Holdings Co., Ltd. Tokyo Stock Exchange Growth Market: Ticker code 1447

## ITbook Holdings Group

## shall promote disaster prevention DX for foretelling a reservoir embankment bursting

We hereby would like to inform you that our group companies, Something Co., Ltd. (Headquarters: Koto-ku, Tokyo, Representative Director and President: Mitsugu Koshirakawa, hereinafter referred to as "Something"), ITbook Technology Co. Ltd. (Headquarters: Minato-ku, Tokyo, Representative Director and President: Kiyoshi Matsuba, hereinafter referred to as "ITbook Technology") and Mirai Co., Ltd. (Headquarters: Hiroshima City, Hiroshima Prefecture, Representative Director and President: Akira Senoo) have conduct a demonstration experiment for analyzing and predicting the causes of levee breaches in reservoirs through a partnership agreement with Mihara City, Hiroshima Prefecture (Mayor: Yoshihiro Okada, hereinafter referred to as "Mihara City") and we shall be able to predict signs of levee breaches for reservoirs as a result of this experiment.

Recently, the number of reservoirs collapsing due to heavy rainscaused by abnormal weather and earthquakes, aging, etc. is increasing year by year (damage locations: approximately 1,000 sites/year, damage amount: approximately 10 billion yen/year (\*1)), and this has become a problem. According to the emergency inspection of reservoirs carried out by the Ministry of Agriculture, Forestry and Fisheries in 2018, 1,540 (\*2) reservoirs required emergency measures.

Our company has been investigating the causes and conducting monitoring experiments at Michishige Pond, which had a levee breach in Mihara City. We have conducted a investigation on the soil quality and strength of the levee body and the lower part of the levee body, as well as the durability of the levee body itself by making full use of the boring investigation (standard penetration test) and SWS test (screw weight penetration test) which are the specialties of Something. In addition, as for monitoring, we have been conducting peak-out surveys and collecting data from increases in water levels in reservoirs and dams due to rainfall, as well as increases in water levels due to runoff after rainy days by

utilizing ITbook Technology's comprehensive weather observation sensor "Sensu" and weather observation cloud system "Mimawari Homing Pigeon". As a result of analyzing these data, it was found that it was possible to estimate how much water level rise the levee body could withstand, and to issue appropriate evacuation recommendations and take precautionary measures in the event of a rise in water level.

Our group will continue to investigate and collect data with the aim of resolving the reservoir issue.

\*1 Source: Ministry of Agriculture, Forestry and Fisheries "holding ponds"

\*2 Source: Ministry of Agriculture, Forestry and Fisheries "Results of the National Irrigation Pond Emergency Inspection (as of the end of August 2018)"



Monitoring works ("Sensu" and "Mimawari Homing Pigeon")



Embankment body investigation (boring investigation (standard penetration test))