Meteorological and geographical conditions of river flooding-Comparison of the past and present of the Miyata River-

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Recently, regarding the heavy rain disaster that occurred in Ibaraki prefecture, we were interested in the difference in the magnitude of the disaster in the rivers. Therefore, we wanted to categorize the flooding of rivers and utilize it for disaster mitigation.
First, we tried to classify the flooded rivers nationwide by precipitation and inclination, but we could not. Next, when we conducted a more detailed literature search on the causes of flooding in the three rivers (Naka River, Kuji River, and Miyata River) in Ibaraki prefecture, we categorized them into three types "sediment flood," "confluence point inundation," and "water level rising flood." Because the local Miyata River was a "sediment flood", we conducted an experiment to confirm the effectiveness of the erosion control dam.
Currently, we are improving the erosion control dam experiment, and creating 3D topographic models of Miyata, Naka, and Kuji rivers using 3D printer.

Keywords: Flooding of rivers, Sabo dam, Flood disaster categorization

