Japan Geoscience Union Meeting 2010

(May 23-28 2010 at Makuhari, Chiba, Japan)

©2009. Japan Geoscience Union. All Rights Reserved.



Time: May 23 09:15-09:30

HSC015-02

Room: Exibition hall 7 subroom 3

Hazard Control and Bamboo along the Yoshino-gawa river, Shikoku

Noboru Furuta^{1*}, Shogo Hirai²

¹Tokushima Bunri University, ²Tokushima University

Yoshinogawa has a very large basin of 1/5 of Shikoku, and, in the middle basin, nothing bank section for extension 18km exists now. A basin is an a great quantity of rain zone of the Pacific slope on Yoshinogawa. From the characteristic of such a basin, Yoshino-gawa repeated the flooding in the downstream area. In this area, the construction of consecutive dikes was late by various reasons. Instead in substitution for it, in Tokushima Plain, Banboo achieves a big role as the flood defense forest, and the significance of the today in the nothing bank section for extension 18km is big by the present when river repair advanced.

This report, we investigated lowland in the Yoshinogawa middle-stream (from Awa-ikeda to Iwatsu) for an example, we identified Banboo who existed on the both sides of the river channel of Yoshinogawa as an aerial photo by a field work and became a figure. In addition, we extracted Banboo from the aerial photo which an US air force photographed and an aerial photo in 1960's, we reported a secular variation of Banboo in dozens of years on GIS and examine. Furthermore, We made out a former river channel than an aerial photo and extracted it and examined relations with the slight topography of the neighborhood of river channel.

Banboo has not been planted only in a purpose to prevent merely flood. Needless to say, to Banboo, there are the driftwood which has been carried by the muddy stream of the river and a purpose to remove a huge rock. In addition, in the muddy water which had been carried by a muddy stream, washed the soil, and there was a work to revivify the fertile fields.

It may be said that the local inhabitants know two contradicting functions of this Banboo well well and inflected. By the report, I want to examine an area difference of the distribution of Takebayashi from a point of view to start.

Keywords: Flood control, Bamboo, GIS, micro-topography, former river channel