

**ANALISIS KEMAMPUAN BANGUNAN SABO  
DALAM MENGENDALIKAN SEDIMEN  
DI SUNGAI BOYONG  
YOGYAKARTA**

**Bambang Supriyatno**

No. Mhs. 7863/PS/MPBA/01

telah dipertahankan di depan Dewan Penguji  
pada tanggal 20 Mei 2003

Pembimbing Utama

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**ABSTRACT**

Boyong river is one of the rivers which spring up in Merapi volcano. The river flows to the south through Yogyakarta town and meets Opak river. And then it goes into Hindia ocean.

We use Sabo technology by making Sabo Dam and Sand Pocket along the river to save Yogyakarta town from the flood. Up to now we have built eight Sabo Dams. The highest position is Boyong dam with number 7 (BO-D7) and followed by BO-D6, then BO-D5, and so on. This Sabo Dams are used for to control sediment, that is to protect sediment in short time when the big flood comes, and to vomit it when the water debit is low. Thus, the sand bags open and are ready to catch sediment in the next flood.

This research analysis how much Sabo building with number BO-D6 and BO-D5 can control the sediment volume during the flood. Based on analysis result, during the flood happening in 1997 BO-D6 could control 28,15 % of sediment, in 1999 it could control 28,47 % of sediment.

While, the flood in January 18, 1998 BO-D6 was able to control 10,552 % of sediment, and 11,428 % of sediment in February 16, 1998, and 11,56 % of sediment in February 24, 1998.

**Key word : *debris flow, sediment, sabo building.***