

## Quantitative evaluation of nutrient discharge in the river with the scale of 100km<sup>2</sup> catchment area

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To estimate the nutrient discharge from the river catchment with high accuracy, it is important to consider the effect of rainfall event.

The objective of this research is to evaluate the nutrient discharge from a river with the 100km<sup>2</sup> of catchment area considering the effect of the rainfall event, especially about the heterolytic gradient in the nutrient concentration within the cross-section of the water body.

The mean concentrations of nutrients were calculated using the relational equation between the river runoff and the nutrient load during the rainfall events. The nutrient load estimated using the mean concentration during only the base flow period is much larger than that estimated considering the rainfall events.