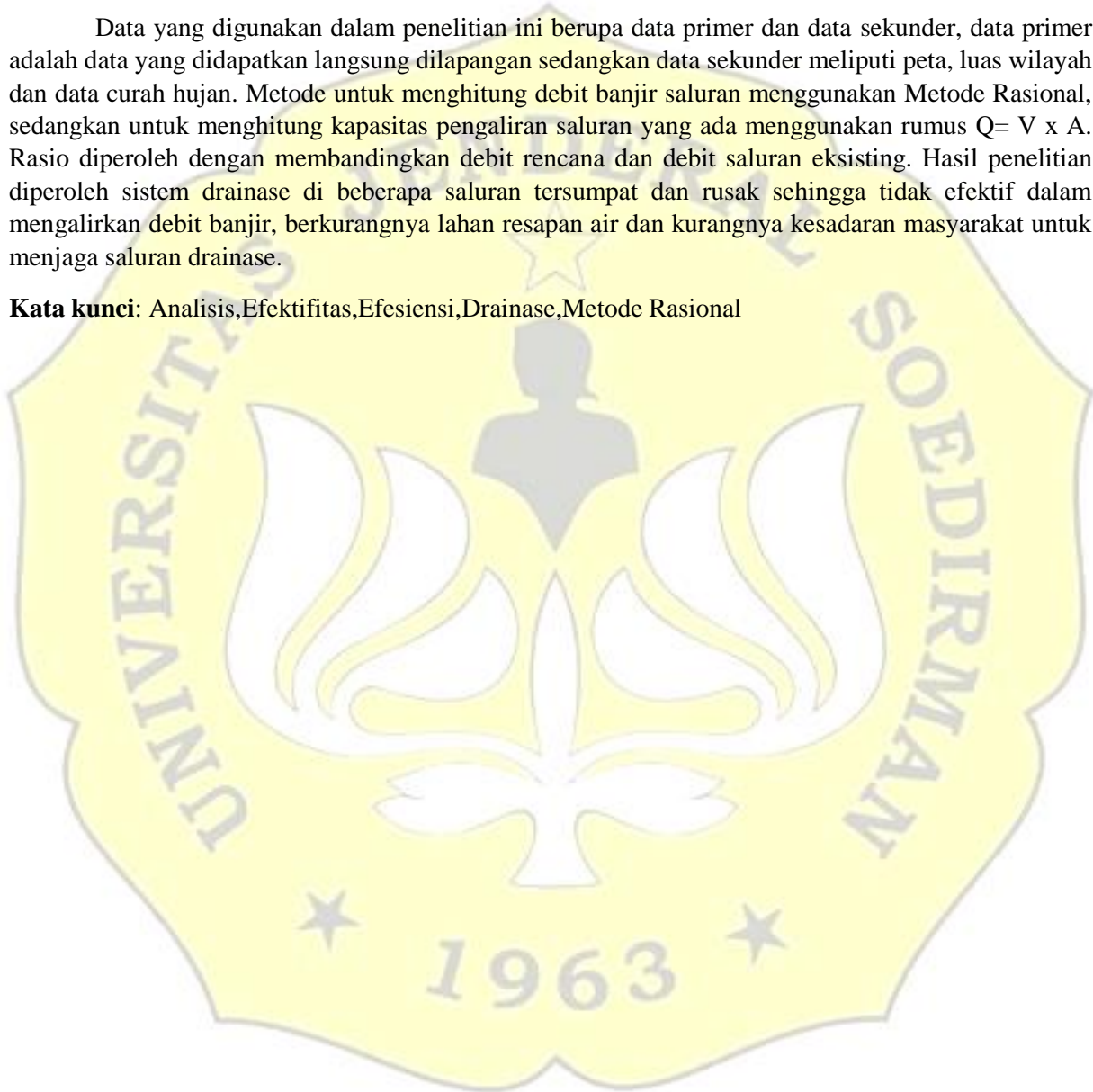


ABSTRAK

Banjir termasuk fenomena alam yang dapat menimbulkan berbagai kerugian. Seperti banjir di Perumahan Genuk Indah Semarang yang terjadi karena meluapnya drainase oleh air hujan dan rob air laut, yang dikarenakan tidak efektif dan efisiennya fungsi drainase, maka tujuan penelitian ini menganalisis kinerja drainase dan mengetahui solusi penanganan banjir di perumahan genuk indah semarang. Penelitian dilakukan dalam rentang waktu november 2022 sampai maret 2023. Penelitian ini dilakukan di Perumahan Genuk Indah Semarang bermaksud untuk menganalisis efektifitas dan efisiensi drainase terhadap rob pantai utara jawa.

Data yang digunakan dalam penelitian ini berupa data primer dan data sekunder, data primer adalah data yang didapatkan langsung dilapangan sedangkan data sekunder meliputi peta, luas wilayah dan data curah hujan. Metode untuk menghitung debit banjir saluran menggunakan Metode Rasional, sedangkan untuk menghitung kapasitas pengaliran saluran yang ada menggunakan rumus $Q = V \times A$. Rasio diperoleh dengan membandingkan debit rencana dan debit saluran eksisting. Hasil penelitian diperoleh sistem drainase di beberapa saluran tersumbat dan rusak sehingga tidak efektif dalam mengalirkan debit banjir, berkurangnya lahan resapan air dan kurangnya kesadaran masyarakat untuk menjaga saluran drainase.

Kata kunci: Analisis, Efektifitas, Efisiensi, Drainase, Metode Rasional



ABSTRACT

Floods are natural phenomena that can cause various losses. For example, flooding in the Genuk Indah Housing Complex, Semarang, which occurred due to overflow of drainage by rainwater and seawater rob, which was due to the ineffective and efficient drainage function. The purpose of this study was to analyze the performance of the drainage and find out solutions for dealing with floods in the Genuk Indah Housing Complex, Semarang. The research was conducted in the period from November 2022 to March 2023. This research was conducted at the Genuk Indah Housing Complex, Semarang with the aim of analyzing the effectiveness and efficiency of drainage on the rob of the north coast of Java.

The data used in this study are primary data and secondary data. Primary data is data obtained directly in the field while secondary data includes maps, area area and rainfall data. The method for calculating the channel flood discharge uses the Rational Method, while the formula $Q = V \times A$ is used to calculate the drainage capacity of the existing channel. The ratio is obtained by comparing the planned discharge and the existing channel discharge. The results showed that the drainage system in several channels was clogged and damaged so that it was not effective in channeling flood discharge, reduced water catchment areas and lack of public awareness to maintain drainage channels.

Keywords: Analysis, Effectiveness, Efficiency, Drainage, Rational Method

