CHAPTER 5
CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

A novel method to determine EWS was proposed and evaluated in this study. Based on an evaluation for ECT, the absence of EWS at the Ketro Dam resulted more than 98% of population at the Bonagung Village affected by flood. The proposed EWS with three warnings was then determined to increase the percentage of survivors from the dam-break event. Based on the water level elevation in the reservoir, three warnings levels were introduced. The first, second, and third/last warning alarms will be announced when the water levels reach +99.47 m, +100.44 m, and +100.48 m, respectively. As the result, these warnings may save 100% of people in the affected areas.

5.2 Recommendations

In this study, we are able to show a simple-yet-effective EWS to reduce the risk of dam-break events. Indeed, further research needs to be conducted more detail, for example, the development of a more accurate ECT, the differences in the ECT calculations for urban and rural areas, and the inclusion of factors in the physical condition of dams. Moreover, the economic loss may also be considered in the next study because it is another important factor that always becomes a concern in a disaster prevention plan.

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