

CHAPTER 5

CONCLUSION AND RECOMMENDATION

5.1 Conclusion

The conclusions of this study are:

1. Dam-break inundation area analysis can be done in 1D, hybrid 1D-2D, and 2D analysis.
2. 1D analysis has the fastest computational time followed by 2D and hybrid 1D-2D analysis respectively.
3. The hybrid 1D-2D and 2D models can predict the inundation area showing a sufficiently accurate result. However, 1D model has overestimated the inundation area.
4. 2D model has the most accurate result.
5. Although 2D model provides more accurate results, 1D model may be still preferable for fast flood predictions to be integrated in an early warning system due to its low computational time.

5.2 Recommendation

It is recommended to make a further study for the hybrid 1D-2D model which focuses on the computational time issue. The study would explain the difference between the hybrid 1D-2D models where the concentrated variable is the transfer process.

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