

# Analisis tekno ekonomi pada sistem komunikasi radio instansi pemerintah terpadu untuk keperluan PPDR (Public Protection and Disaster Relief)

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## Abstrak

[<b>ABSTRAK</b><br>

Tren global bencana alam mengalami peningkatan, baik yang disebabkan oleh perubahan iklim, pemanasan global, gempa bumi maupun oleh perbuatan manusia. Jika dilihat dari statistik peningkatan terjadinya bencana, kejadian bencana alam diseluruh dunia mengalami peningkatan dari tahun ke tahun. Indonesia merupakan negara maritim yang terletak pada tiga lempeng besar dunia dan jalur ring of fire sehingga berpotensi besar terhadap bencana tsunami [1]. Telekomunikasi memiliki peranan penting sebagai alat komunikasi pada saat terjadinya bencana.

Dalam penelitian ini akan diusulkan dua skenario alternatif metoda pengembangan jaringan PPDR Broadband, yaitu Skenario Alternatif I : Pemerintah membangun dan mengoperasikan sendiri dan Skenario Alternatif II : Kerjasama Pemerintah dengan Operator Telekomunikasi. Analisis dilakukan berdasarkan sudut pandang Pemerintah. Cakupan area penelitian adalah DKI, Jabar dan Banten. Pada Skenario alternatif I, didapatkan nilai cost benefit analysis sebesar 903 dan untuk skenario alternatif II didapatkan nilai cost benefit analysis sebesar 1837. Kedua skenario tersebut dapat dikatakan layak secara ekonomi, tapi jika pemerintah menggunakan alternatif II dapat menghemat biaya sebesar 1,4 Trilyun Rupiah. Hasil penelitian ini diharapkan dapat menjadi masukan kepada pemerintah perihal pemilihan metoda pembangunan infrastruktur komunikasi radio antar instansi pemerintah untuk PPDR.

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<b>ABSTRACT</b><br>

Global trend of natural disasters has increased, whether caused by climate change, global warming, earthquakes or by human actions. When viewed from the statistical increase in the occurrence of disasters, natural disasters around the world has increased from year to year. Indonesia is a maritime country that lies in the world's three major plates and lane ring of fire that has great potential for tsunami disaster [1]. Telecommunications has an important role as a means of communication in the event of a disaster.

In this study will be proposed two alternative scenarios development method of PPDR Network, namely the Alternative Scenario I: build and operate by Government and Alternative Scenario II: Public Private Partnership. The analysis is based on Government view. The coverage area of research is Jakarta, West Java and Banten. In the alternative scenario I, we found that value of cost benefit analysis are 908. and In the alternative scenario II, we found that value of cost benefit analysis are 1837. Both of these scenarios can be said to be economically viable, but if the government uses the second alternative can save

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