

PENGARUH PERUBAHAN TATAGUNA LAHAN TERHADAP EROSI DAERAH TANGKAPAN HUJAN DAN PENDANGKALAN WADUK WAY RAREM

Sudarto

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Pembimbing Utama

Dr. Ir. Bambang Agus Kironoto

Pembimbing Pendamping

Dr. Ir. Istiarto, M.Eng

Anggota Dewan Penguji Lain

Dr. Ir. Bambang Yulistiyanto

ABSTRACT

The catchment area of Way Rarem Reservoir has suffered changes of land use, namely landuse from forest area (1976) becoming agriculture farmland and plantation (1999-2000). Those have resulted in the increasing of run off, sheet erosion and sediment transport.

This work deals with estimate of sheet erosion by using the so-called Modified Universal Soil Loss Equation (MUSLE). The subsequently resulting reservoir sedimentation is predicted through the Sediment Delivery Ratio (SDR) determined by using the method developed by Kirkby & Morgan (1980) .

Result of computation shows that The catchment area of Way Rarem Reservoir erosion (1999-2000) equal to 100,39 ton/ha/year or 5,58 mm/year. By providing certain erosion countermeasures, the erosion rate reduces to 45,85 ton/ha/year, which is equivalent to 2,55 mm/year .

Keyword : *Landuse, Erosion, Sedimentation, Erosion Countermeasure.*